

Jenkins resigns as leader to make way for Owen

By John Winder

Mr Roy Jenkins resigned yesterday as leader of the Social Democratic Party, and said that he hoped Dr David Owen would take over the leadership without a contest.

Mr Jenkins had made up his mind to give up the leadership immediately after the election which cut the SDP's parliamentary membership from 29 to six. The reasons for his decision were not immediately apparent, and Mr Jenkins made himself "unavailable for comment" last night after the formal unexpected announcement.

Over the weekend, Mrs Shirley Williams, Mr William Rodgers, Dr David Owen, Lord Diamond, SDP Leader in the Lords, and Mr John Roper, formerly the SDP whip in the Commons, were invited to lunch yesterday by Mr Jenkins, apparently without telling them of his decision. No paid officials of the party were invited.

Mr Jenkins's decision took his guests by surprise. They had been expecting to discuss the future in general terms and deal with the leadership question tomorrow at the first meeting of the party's six MPs.

Dr David Owen last night made clear that he would accept nomination for the leadership. He did not deny that he hoped for a formal nomination from Mr Jenkins and said that, were he to become leader, he would do all he could to deepen the relationship between the SDP and Liberals.

He emphasised that he did not wish to assume or take for granted the views of his fellow MPs in making a choice of leader.

In a statement, Mr Jenkins said: "At the beginning of a Parliament which is clearly going to run for some years, I regard it as desirable that the SDP should immediately have a leader for the next election. Fortunately, with David Owen's victory at Devonport, such a leader is available."

"It is for the SDP MPs to nominate and for the membership of the party as a whole to make the decision. But I hope that David Owen may be elected without a contest, and will lead the party to the full success that its solid basis of votes makes possible."

"My handing over the leadership certainly makes no withdrawal from full political activity. I shall be particularly active in safeguarding the unity of the Alliance, in promoting the ever more necessary cause of electoral reform, and in representing the interests of my constituents in Hillhead."

There was reference in SDP circles last night about the reasons for Mr Jenkins's resignation, but at an election in five years' time he would be nearly as old as Mr Michael Foot is now. Mr Jenkins was born in November, 1920.

In nominating his successor, informally so far, Mr Jenkins has recognised that Dr Owen was the SDP's campaigning star in the past four weeks.

Mr Jenkins personally told Mr David Steel, the Liberal leader, of his decision.

There have been consultations already between Mr Steel, Dr Owen and Mr Jenkins to ensure the continuation of the Alliance in Parliament. While Dr Owen was never as enthusiastic as Mr Jenkins for the formal partnership between the two parties, he has accepted the practicality of the arrangement.

Those in charge of SDP finances will be hoping that Mr Jenkins's expressed wish for a leader to be chosen without an election will be heeded. The SDP leader is chosen from the MPs, by popular vote of the

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Mr Jenkins: "Will act to safeguard the unity of the Alliance"

Falkland casualty gets his old job back in reshuffle

By Julian Haviland, Political Editor

Mr Richard Luce, who resigned from the Government with Lord Carrington and Mr Humphrey Atkins after the invasion of the Falkland Islands last year, has been reappointed to his former post as Minister of State at the Foreign Office.

His is one of 34 appointments in the middle and lower ranks of government announced from 10 Downing Street yesterday. Eight new ministers are appointed from the back benches. The most senior new appointment is Mr Ian Gow, the Prime Minister's parliamentary private secretary throughout the last Parliament, who becomes Minister for Housing and Construction in the Department of the Environment, with the rank of Minister of State.

Among the eleven promotions from within the government the senior position is taken by Mr Patrick Mayhew, the former Minister of State at the Home Office, who becomes Solicitor-General and receives a knighthood. His predecessor, Sir Ian Percival, is one of nine ministers who were asked to resign.

It was said on the Prime Minister's behalf last night that she found it painful to prune her administration to allow new growth. It was pointed out that Mr William Shelton, her former parliamentary private secretary and a junior education minister, was among the casualties.

The list shows that the Prime Minister has kept her promise to see that all strands of party opinion are represented. Mr Christopher Patten, the former head of the Conservative Research Department who has been a persistent critic of the Government's economic direction, gets his first post as Parliamentary Under-Secretary at the Northern Ireland Office. A more discreet critic, Mr Michael Ancram, chairman of the Conservative Party in Scotland, becomes Parliamentary Under-Secretary at the Scottish Office.

The other new ministers, all of whom receive junior posts, are Mr Alan Clark, a right winger, who goes to Employment, Mr Robert Dunn (Education and Science), and Mr David Trippier (Trade and Industry). Baroness Trumpington becomes a whip in the Lords.

At Minister of State level, several people have been moved to widen their experience with the clear indication given that their talents are valued. Mr Douglas Hurd, senior new appointment as Mr Ian Gow, the Prime Minister's parliamentary private secretary throughout the last Parliament, who becomes Minister for Housing and Construction in the Department of the Environment, with the rank of Minister of State.

Mr Channon's former role goes to the Earl of Gowrie, who has been deputy Secretary of State for Northern Ireland under Mr James Prior. Lord

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Gowrie will be Minister of State at the Privy Council Office, where he will also have charge of the Management and Personnel Office, under the Prime Minister's oversight. The office will become part of the Cabinet Office.

One of the luckier members of the Government is Mr Hamish Gray, who last week lost his seat in Parliament as member for Rose and Cromarty, but receives a life peerage and moves from the Department of Energy to the Scottish Office as Minister of State.

Mr John Cope, after long service in the whips' office, becomes deputy chief whip under Mr John Wakeham, Mr

Continued on back page, col 4

Tomorrow

Heart-searching
Someone dies of heart disease every three minutes in Britain, an epidemic that need not happen. On the Wednesday Page, Peta Levi examines the problem and the cure.

Heartland
After all these years, Wimbledon remains closest to the heart of every tennis player. Rex Bellamy, continuing his Spectrum series, explains why and corrects some false impressions.

Heartaches
Bernard Levin reflects on Labour's electoral disaster and concludes that, in a way, the party is dying of a broken heart.

Black union joins mine wage talks

South Africa's Chamber of Mines, which represents the six leading mining houses, sits down today for the first time in negotiations with a recognized black miners' union. The new union will ask for a 30 per cent pay rise. Pay talks, page 4. Leading article, page 9.

FINANCIAL TIMES

Hopes of an agreement to resolve the 14-day stoppage at the Financial Times receded yesterday as the company said that it had lost £1.5m already and was prepared to lose more unless the National Graphical Association, the union at the centre of the dispute, climbed down.

Tristram back

Sir Tristram, one of the two landing ships bombed at Bluff Cove during the Falklands conflict, arrives back in Britain today for repair. Since fighting ended she has been used for troop accommodation at Port Stanley.

RTZ cash call

Rio Tinto-Zinc, the mining finance house, plans to raise £198m on the stock market in the third largest rights issue ever made. Page 13.

Saatchi soars

Saatchi & Saatchi, the advertising agency which handled the Conservative Party's election campaign, has more than doubled its half-yearly profits to £4.83m. Investors' Notebook, page 14.



Film star dies

Norma Shearer, who has died in Los Angeles aged 81, was one of Hollywood's biggest stars of the 1930s. Her films included *The Divorcee*, *Idiot's Delight* and *The Barretts of Wimpole Street*. Obituary, page 10.

Connors No 1

Wimbledon have seeded Jimmy Connors No 1 and John McEnroe No 2 for the men's singles. Martina Navratilova and Chris Lloyd are expected to contest the final of the women's event. Page 23.

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Letters: On electoral priorities, from Mr C. Price, and others; church vandalism, from the Rev B. J. Marshall, and Mrs J. C. Ward-Aldam
Leading articles: Hereditary peerages: P & O and Trafalgar; South African miners
Features, pages 6-8
Peter Hennessy on the Churchill boom: What's going on at the *Financial Times* Spectrum: The tennis grand slam. Fashion: The best of British
Japanese Technology: Eight-page special report on Japan's high tech industries and their chances of leaving the West behind
Computers, pages 20, 21
The attractions of Trilogy: an offer for micro-users; and a computer explosion in a London Borough
Obituary, page 10
Miss Norma Shearer

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Pressure on Howe over EEC budget

From Ian Murray, Luxembourg

Sir Geoffrey Howe was last night fighting off attempts by other EEC foreign ministers to force Britain to mortgage its future in the Community.

The Foreign Secretary, at his first Council meeting in his new job, had to resist pressure from a majority of countries to agree to a substantial increase in the Community's income before they would agree to a budget rebate for Britain.

As the meeting dragged on it became inevitable that Mrs Margaret Thatcher would have a major task on her hands at the EEC summit in Stuttgart next weekend to win early agreement on the British rebate.

Most countries are quite determined that there can be no proper discussion of the rebate until Britain accepts the principle that the Community's resources have to increase.

Britain is equally determined to block any such rise until it is satisfied that the Community is spending its money wisely, and agricultural spending is brought under control.

New Commission figures released yesterday show that the common agricultural policy will cost the EEC 30 per cent more this year than last. This will add an extra £240m to the cost of running the Community.

Sir Geoffrey made very clear from the start of yesterday's meeting that Britain would not

England win easily

England are one victory away from a Prudential World Cup semi-final place following their semi-wicket win over Pakistan at Lord's yesterday.

Fine bowling by skipper Bob Willis (2-24) on a helpful pitch kept Pakistan's total down to 193 for eight, with Zaheer-un-Deen Khan, who was unbeaten on 83, England leaving nothing to chance, took 51 overs to reach their target, with Graeme Fowler top-scoring with 78 not out. They lost Tavaré in the ninth over, but

Cost-cutting timetable, page 4

Spaniards keep hold of Harrier

From Richard Wigg, Santa Cruz, Tenerife

The Royal Navy was stopped from unloading its stricken Sea Harrier from a Spanish cargo vessel here yesterday by opposition from the ship's crew and the owners despite a Spanish maritime court having ordered its release.

Captain Aitor Suso, skipper of the *Alraigo*, which rescued the Harrier in the Atlantic last week, let it be known he would not let a naval party go on board while a dispute over compensation for salvage continued.

The 13 crew of the *Alraigo*, the Spanish independent seamen's union and the Garcia-Mitaur line, owners of the vessel, have petitioned the investigating magistrate for a down payment of £5.5m from Britain.

Labour MPs may indicate choice of leader tomorrow

By Anthony Bevins, Political Correspondent

Labour's 209 MPs will be asked tomorrow whether they want to elect a new shadow cabinet. The poll could be used to indicate their choice between the contenders for the party leadership.

The rules of the parliamentary party say that such an election may be held at the beginning of a new session of the Commons "as may be found convenient."

There was little doubt last night that MPs would insist on the ballot, if only as a means of telling the senior whips where the best interests of the party lie. It would be possible to elect a new shadow cabinet by July 13, two days before nomination closes for the party leadership.

As MPs began to trickle back to Westminster yesterday, few doubted that the early lead established by Mr Neil Kinnock over his main rival, Mr Roy Hattersley, would be hard to shake. Mr Hattersley's supporters feel most strongly, however, that it would be folly for the electoral college to go for a man with no government experience, who has already made it clear that he does not blame the party's policies, organization or leadership for last week's election catastrophe.

Mr Kinnock said on BBC television's *Breakfast Time* "There will be no bloodbath. There will be no punch-up."

But there are already signs that the Hattersley camp will pull no punches in its central campaign message: that there is a need for a radical review of Labour policy and style, with an outright repudiation of the Foot-Kinnock axis.

Mr Gerald Kaufman, one of the contenders for the deputy leadership, said on BBC radio's *World at One* "You cannot win elections by running things down people's throats." Mr Hattersley and Mr Kaufman believe that the electorate will not buy Mr Kinnock's nuclear unilateralism at any price.

The Government is however, likely to welcome some further easing of sterling against the German and Japanese currencies.

Fears of a rapid slide against the dollar have been allayed by better-than-expected American money supply figures last Friday. These led yesterday to lower dollar interest rates, removing one short-term obstacle to lower rates at home.

But the Government's unwillingness to countenance a heading fall in interest rates, which might destabilize sterling, means that further cuts may come too late for the building societies. They have said that mortgage rates will go up by 1½ per cent unless the banks cut their lending rates by at least 1 percentage point before the societies meet.

Spending boom, page 17

Cost of home loans may still rise

Banks set to cut interest rates

By Frances Williams, Economics Correspondent

The Bank of England yesterday gave the green light for interest rates to come down, and a cut in banks' base lending rates is virtually certain this week. The big high street banks are expected to reduce base rates by ½ per cent within the next day or two.

But the fall may not be enough to stop the building societies from putting up their mortgage rates when they meet on June 22.

The authorities have wasted no time in signalling to the markets that they want lower interest rates now that the election uncertainty is over. The Bank yesterday cut the rates at which it channels funds into the money markets by ½ per cent, and a similar reduction is likely today.

Treasury and Bank officials have been worried for some weeks that the strength of sterling is damaging economic recovery by pricing British goods out of world markets. The fear was again voiced on Friday by the Confederation of British Industry when it called on the Government to cut interest rates.

One of Mr Nigel Lawson's first tasks at the weekend, after his appointment as Chancellor, was to approve an interest rate reduction to help lower the pound's international exchange value.

The move was only too successful yesterday. The pound fell sharply against all leading currencies, losing 1.5 points on its trade-weighted index to finish the day at 85.4. It dropped 1.75 cents to \$1.525 with even steeper falls against the Deutsche mark and yen, where Britain's lack of competitiveness has been most acute.

Weatherill is Tories' favourite for Speaker

By Philip Webster, Political Reporter

After a day of intense consultations, Mr Bernard Weatherill last night remained the favourite to become Speaker of the Commons tomorrow, in spite of the Prime Minister's apparent misgivings.

Conservative party whips, who were busy over the weekend and yesterday taking soundings among their MPs, apparently detected majority support for Mr Weatherill, aged 62, who was Deputy Speaker in the last Parliament.

He has long been a front-runner but never a clear choice, and other names are being

How the Speaker is chosen Page 2



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GREAT REDUCTIONS

Put the children's rights and needs first in divorce, church urges

The Rev John Bradford yesterday urged people to recognize that the children of divorced parents "have rights and needs which have got to be considered right at the heart of the divorce process".

Announcing the publication of an ecumenical report on Children and Divorce, Mr Bradford, chairman of the ecumenical working party, added that in the Church of England "for far too long the issue had been over whether the remarriage of divorcees is right or not. What we are saying is that the key question, the matter of paramount concern, is how we are caring for the children."

The report calls for wider consultation so that arguments over access to children can be resolved quickly. Welfare reports should be produced on all children in divorce cases.

On access arrangements Mr Bradford said that the child "should not feel utterly locked and hemmed in, and unable to move, enslaved by the sort of system which has been set up by the probation officer, ratified by the courts."

Mr Bradford said that there were many myths about divorce. "The first myth is that divorce is private to the couple, even when children are involved. We do not believe that is true."

He regarded the idea that divorce is "just a mess, and that is all there is to it", as irresponsible.

He added: "Parents who use the issue of custody and access

as a blackmailing weapon to make the other side yield on certain articles, possessions, financial, or other aspects, we cannot deplore this enough."

Emphasizing that more than 200,000 children a year are affected by divorce, he said: "With a new Government securely voted in, without any party point being made, this would seem a very good time for the long-standing proposals about family courts to be implemented."

Family court idea welcomed

The idea of a new, single court to handle family matters in place of the present split jurisdiction between the High Court and county courts was welcomed by the Law Society yesterday. (Our Legal Affairs Correspondent writes.)

In a memorandum in response to proposals by the Lord Chancellor in January on a family court, it says it approves the suggestion that most family matters, including divorce, family provision, adoption and wardship should be allocated to a special family court with its own judge.

It urges the Lord Chancellor to take the opportunity to change the present rules so that solicitors would be allowed to conduct appeal cases before High Court judges in the family court.

The Lord Chancellor's proposals are in response to increased "public and parliamentary concern at the way in

which matrimonial matters are handled." He has admitted that the present system is complex and encourages shuffling of cases between courts because of varying scales of costs.

The Law Society points out that the proposals differ from its own for a family court, detailed in *A Better Way Out* in 1979, in that counselling services would not, for the moment, be integrated with a new family court. Magistrates' courts would also keep their own separate matrimonial jurisdiction.

It says all care cases should go before a family court and calls on the Government to include legislation for its creation in the next Parliament.

Disco fire deliberate

A St Valentine's night fire in which 48 teenagers died was started deliberately, a court in Dublin ruled yesterday. It accepted the evidence of Dr Robert Watt, an English forensic scientist, that the fire could not have been an accident.

The fire happened in 1981 at the Stardust discotheque club in Dublin. Dr Watt told yesterday's hearing: "The heat generated by the fire was greater than that from several power stations." He rejected the possibility of an electrical fault.

A claim for £183m malicious damages against Dublin corporation by the club's owner was adjourned until July 8.

Jury visits scene of Calvi hanging

By John Witherow

The jury at the second inquest on Roberto Calvi, the Italian banker found hanging from scaffolding under Blackfriars Bridge, in London, a year ago, yesterday visited the scene.

The six men and three women were taken by police van from the City of London Coroner's Court to the Thames embankment where they were shown the position of the now dismantled scaffolding.

The new inquest on Signor Calvi, known as "God's banker" because of his close links with the Vatican bank, was called after the High Court quashed a majority verdict of suicide last July.

The judges ruled that the jury had been misdirected from an open verdict and had not been given enough time to reach a decision.

Yesterday the inquest was convened by Dr Arthur Gordon Davies, the Southwark Coroner, conducting proceedings. The family has asserted that Signor Calvi did not kill himself and his daughter, Signorina Anna Calvi, and Vittorio Senso, her boy friend, are expected to give fresh evidence about his state of mind just before he died.

The proceedings were delayed by legal arguments, and the coroner subsequently told the jury that he had excluded some written documents. Signor Calvi's widow, Signora Clara Calvi, left the courtroom on two occasions when she became distressed by evidence about how the body was found hanging from

scaffolding, just above the water level on June 18.

A statement was read from Signor Lorenzo Calvi, the dead man's brother saying that Signor Calvi, president of the Banco Ambrosiano, had been in good physical and psychological condition. Although he had worn a moustache since his youth, he was clean shaven when he died.

He also confirmed that his brother had cut his wrists and taken tranquillizers in 1981 when it became apparent that his banking empire was in trouble. Signor Calvi had been convicted of currency offences in Italy and sentenced to four years in prison. He had fled to London days before his appeal against the sentence.

Mr George Carman, QC, for the Calvi family, produced the only new witness, Mr Robin Ekblom, senior hydrographic surveyor. He said that from where the rope was tied to scaffolding he would have had to wait until 3am for the tide to fall sufficiently for a freefall.

The jury was told that Signor Calvi's body was seen at 7.30am by an office worker. He was carrying a false passport. There were five stones and half-bricks in his jacket and trouser pockets and in the front of his trousers.

The police found £7,367 in foreign currencies in his pockets, with correspondence, photographs, and an expensive gold watch. There was no key for the Chelsea apartment where he had been staying.

The inquest continues today.

Cancer risk warning on fatty food

At least 30 per cent of cancer deaths could be averted by avoiding certain foods, Professor Sir Richard Doll, director of the Imperial Cancer Research Fund's epidemiology unit at Oxford, said yesterday.

Sir Richard, one of the men whose research in the 1950s first established the cancer risks of smoking, said that animal fats and fatty dairy products in particular, could be dangerous.

Among the evidence he cited at a press conference to launch the fund's new booklet, was that having been rare in Japan, cancer was increasing with the introduction of the richer, western-style foods.

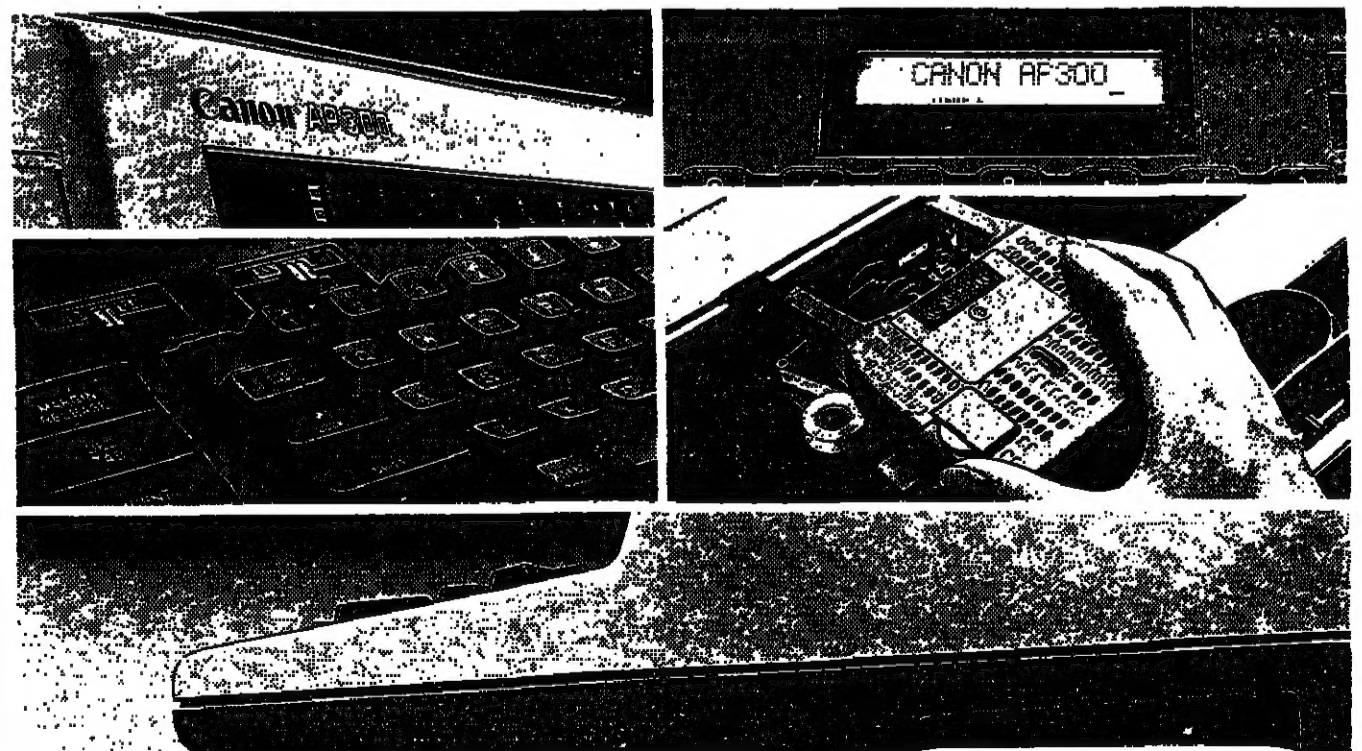
Vegetables and high-fibre foods provided a healthier diet, Sir Richard said.

Dr Jack Cuzick, the fund's chief statistician, said that the introduction of a computerized system for offering women cervical cancer tests could save half the 2,000 annual cervical cancer deaths by early detection through regular tests.

Copies of the booklet are available free from Imperial Cancer Research Fund, PO Box 123, Lincoln's Inn Field, London WC2A 3PX.

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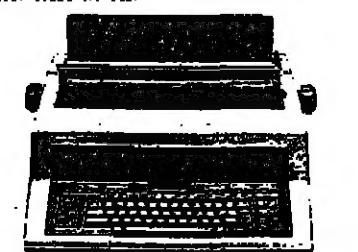


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Roach 'not involved in struggle'

By Nicholas Timmins

A second pathologist yesterday told the inquest into the death of Mr Colin Roach, the black youth who died of a shotgun blast in the entrance to Stoke Newington police station, that the injury appeared to be self-inflicted.

Dr Ian West, a consultant in forensic medicine at St Thomas' Hospital, who was called by the Roach family to make the second post-mortem examination, said there was nothing to suggest that anyone else was involved.

"There are no marks to suggest he was involved in a fight or a struggle, no grip marks on his arm. If somebody else had gone up to him and put the gun in his mouth, unless he was willing, it is going to have to have been the gun through the mouth and lips."

That case the lips would be washed and teeth broken, there is no sign of it."

added: "I can see no evidence to suggest that someone else had deliberately put the gun in his mouth and fired it. The injuries fitted with the pattern of self-inflicted wounds."

The jury heard from Police Constable Brian Jackson that he was on duty behind the counter at Stoke Newington police station on the night of Wednesday, January 12.

At about 11.30pm he heard a loud bang and looked up to see a dark object strike the outer glass doors. He went through the police station foyer and into the lobby and saw a young man sit on the floor to his right, his head slumped forward.

There was a towel on his shoulder and a shoulder bag on his back. "I thought there was nothing I could do for him. I thought he was dead."

He went through to the street with another officer who questioned a man who had just gone round a corner. There was no one else in the street that he could see. When he returned the towel had fallen into Mr Roach's lap.

A video film was shown to the jury of test firings of the shotgun to show how far it could have recoiled from Mr Roach's body when it went off.

Go-ahead sought for herpes cure trials

By David Hewson

The Committee on the Safety of Medicines will be asked soon to approve clinical trials for the first breakthrough in a cure for herpes.

The possibility of a cure for the recurrent venereal disease, which has about 100,000 British sufferers, has been raised by scientists working at Birmingham University and the Centre for Applied Microbiology and Research at Porton Down, Wiltshire.

Trials carried out on herpes sufferers have shown a remarkable success rate. Two injections of the new virus, produced from a related herpes virus type, one which usually causes sore throat, have protected 97 per cent of the partners of known sufferers against attack. Patients who had suffered one attack only were treated with three injections, which prevented a recurrence in 75 per cent of cases.

A group of patients who had several attacks also received three injections. They felt that their conditions had improved, but no controlled trial on the effect on their condition had been carried out.

Scientists involved in the research believe that the new virus could be on general prescription within five years if controlled clinical trials, sanctioned by the committee prove successful.

Tests have been carried out only on volunteers to date. Approval for clinical trials

would enable researchers to run controlled tests among herpes sufferers who have been told that their condition cannot be treated.

The scope of the clinical tests, which seem certain to be sanctioned, will be left to the researchers, the Department of Health and Social Security said yesterday. At the end of the trials, the product will be considered by the Committee on the Safety of Medicines. It will then recommend to the DHSS whether it should be licensed for general use.

A successful treatment for herpes would have an international market, particularly if it passed the strict drug codes enforced in the United States, where the disease is particularly prevalent.

Professor Jack Mellings, who has been leading the Porton Down team, which has cooperated with the Birmingham unit over the research, said yesterday that the work offered great hope to sufferers, but it required further evaluation before he could be entirely optimistic.

The disease is sexually transmitted and caused by the herpes simplex type two virus. It is recurrent and gives rise to painful sores, usually in the genital area. The initial attack is often accompanied by symptoms similar to influenza and can cause emotional distress, which is not always proportional to the size of the sore.

Poison study of soil

From Our Correspondent, Birmingham

Scientists at Aston University, Birmingham, are seeking an EEC grant of £240,000 to fund research on whether Walsall in the West Midlands is becoming poisonous.

A team from the university's environmental studies department has discovered "hot spots" of cadmium in soil from gardens in the town.

The researchers have found above-normal deposits of lead, cadmium, nickel, copper, and zinc in soil samples taken all over the West Midlands and believe they are from air pollution and industrial use of land.

Dr Frank Joyce, head of the department, said however that no deposits above safety levels had been found yet, but that

deposits were still being made and that long-term effects were unknown.

The team sees Walsall as a good test area because of its long industrial history. Dr Joyce said: "If it is safe in Walsall, it is safe anywhere." The town estates built over old metal workings nearly fifty years ago and long-term effects, if any, should exist in older inhabitants.

Cadmium stays in the body once it has been taken up in food and has been held responsible in Japan for liver damage and other disease."

Dr Joyce said that research seemed to show that the rate of deposit of all metals except cadmium was going down.

Dieting with Diana Dors on TV-am

By Kenneth Gosling

Women were fed up with "all this gimmickry" and there would be no strenuous Jane Fonda-type movements for them to undergo.

Miss Dors recalled her own "fabulous figure" when she weighed a trim 9st 2oz. In 1976 she lost a stone and a half after an illness but put it all back on again. "It is the old lasting habits that really kill you," she said.

She makes her first appearance this Friday at 8.45 am and discussed an apparently popular idea that she always lies in bed until lunchtime. "I am at my best in the mornings," she said.

Would her course help TV-am? "It could not have got any worse, could it?"

Mr Greg Dyke, editor-in-chief of TV-am, hopes Miss Dors would stay on after the 16 weeks; she envisaged some kind of "agony auntie" role.

Mr Dyke regards the present average rating for the station of 700,000 as "a bit dubious—we are not too excited. There was the election and the school holidays. If it holds up for six weeks it is a different matter."

But the last word went to Diana Dors. Someone wanted to know if their would be a noble girl to do the exercises and titillate the male viewers.

"This," she growled, "is mainly for women, why should we want to titillate men?"

As for the diet, the only chums yesterday were its title, X-Cel, a cellulose plan based on high-fibre foods with traditional calorie counting, and a recipe for a sweet called apricot chiffon, composed of lemon jelly, boiling water, two cups of apricots and half a pint of natural yoghurt.

Recipe cards and exercise sheets will be available.

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BR purge on fare fiddlers

A new campaign to tackle fare dodging on trains was launched yesterday with an appeal to passengers to "tell on cheats". British Rail said that as many as one in four passengers into London's Liverpool Street and Fenchurch Street stations could be dodging fares.

Mr Kenneth Callender, the chief ticket inspector at Liverpool Street, added: "Passengers are dodging fares on a regular basis. And at any of the main line stations you go to on any day of the week, you can pick up the same result". Frauds involving season tickets were at the core of the problem.

More people were informing on others already and Mr Callender added: "We are hoping to recruit the public to help us to track down the fare 'dodgers'."

British Rail says cheats are costing it £1m a year in the Liverpool Street division.

'Coronation St' star for trial

Peter Adamson, who stars in the television serial, *Coronation Street*, was sent for trial yesterday to Burnley Crown Court on two charges of indecently assaulting eight-year-old girls.

Mr Adamson, aged 53, who plays Len Fairclough, was charged under his full name of Peter George Adamson, when he appeared at Rossendale magistrates court, Rawtenstall, Lancashire. He elected for trial by jury at an earlier hearing. Reporting restrictions were not lifted.

Shoppers charter

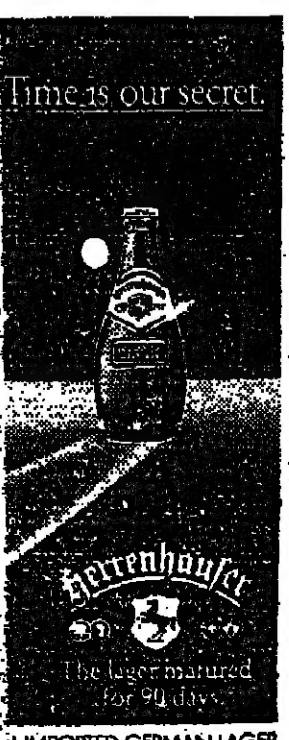
The National Federation of Meat Traders launched a customers charter to protect shoppers yesterday. Under the scheme the federation will investigate any complaints made against member butchers.

Murder charge

Dennis Cunningham, aged 31, of Maysville Road, Battersea, south London, and his sister, Rosemary Clarke, aged 20, of Ingrave Street, Battersea, were remanded in custody until June 20 by South-western magistrates yesterday after being accused of murdering Fiona MacLaren, aged 14, of Headington Road, Earsfield, south-west London.

£55,000 for fall

Mr Ralph Drewery, aged 36, of Finer Road, Harrow, north-west London, who injured his back when he slipped on the floor of Clerkenwell fire station, London, as awarded £55,000 damages in the High Court yesterday. The Greater London Council had denied liability for the accident, which happened in 1980.



Black miners flex new union muscle and demand 30% pay rise

From Michael Hornsby, Johannesburg

South Africa's Chamber of Mines, which represents the country's six main mining houses, sits down for the first time today to negotiate wages and conditions of employment with a recognized black miners' union. Hitherto, these matters were in effect simply decided by the chamber.

The terms of the chamber's recognition of the new union, the National Union of Mine-workers (NUM), were agreed in principle on June 2, and the final agreement signed a week later.

The union, founded last August, claims a signed-up membership of about 25,000. It has refused to register with the Government.

In a statement issued yesterday, Mr Cyril Ramaphosa, its 30-year-old general secretary, said the NUM would be asking for a 30 per cent wage increase across the board. "We believe that this is a reasonable demand which the chamber can easily afford particularly if they are committed to the principle of closing the wage gap between black and white."

He also called on the chamber to "state unequivocally" that it is committed to the ending of racially-based job reservation. Blacks are barred

from becoming fully fledged miners by a law dating back to the early years of the century under which only "scheduled persons" (i.e. whites) can obtain blasting certificates showing they are competent to handle dynamite.

At the beginning of the year the average black wage in the mine was R268 a month (£156), compared with R1,448 for whites. The chamber argues, however, that another R96 should be added to the black wage to cover free board and lodging on mine compounds. The 28,000 whites working on the mines were granted an 8 per cent rise last month.

Under South African law, all but a maximum of 3 per cent of black mine workers are forced to be migrants, separated from their wives and families, and living in "hostels" on the mine compounds. The compounds have improved greatly in recent years, but they still have a markedly custodial atmosphere.

About 42 per cent of the 455,000 blacks in the gold, copper and platinum mines come from foreign countries - mainly Lesotho and Mozambique. The rest are mostly from the republic's tribal homelands - the biggest supplier being Transkei. In 1974, 79 per

cent still came from outside South Africa.

The migrancy of the labour force has been one of the main obstacles to the unionization of black miners. Access to the mine compounds by union officials for the purpose of recruitment is controlled by the mine managers, and some are much more accommodating than others.

Although the NUM has been recognized at this stage as the negotiating agent only for some job categories on no more than eight mines, all but one of them belonging to the relatively liberal Anglo-American Corporation, and although its membership is small compared to the size of the total workforce, it is thought likely that any pay increase agreed with the union will in practice be extended to all mines.

The economic implications of the agreement to recognize the NUM are far-reaching. More than 400,000 blacks work in the gold mines alone, which account for about 45 per cent of the country's export earnings and also furnish the exchequer with its single biggest source of internal revenue.

Leading article, page 9

Guerrillas killed by own bomb

From Robert Fisk, Beirut

Three guerrillas blew themselves to pieces with their own bomb yesterday as they tried to plant 100 kilograms of TNT beside the Israeli Army's main supply route around west Beirut. Their car exploded in a mass of brown and black smoke near the suburb of Shweifat half a mile from the nearest Israeli troops, leaving the corpses of the three men strewn amid the trees of an olive grove.

Positioned in their multinational force contingent headquarters a mile away in Hadeith, from where the smoke was clearly visible, it was a classic "own goal" of the type familiar to them in Northern Ireland.

The three men, whose remains still had not been identified last night, apparently were trying to find a side road off the main highway in order to avoid an Israeli checkpoint when their car bumped heavily on the rutted tarmac surface and set off the explosives.

It was the second attempted ambush on Israeli troops during the day. In the morning, a rocket-propelled grenade had been fired at an Israeli patrol in the Chouf mountains without causing any injuries. According to the statistics of the Lebanese police authorities, there have been a total of 24 attacks on the Israelis around Beirut, in the Chouf and in the Bekaa valley since May, killing 12 Israelis and nine Lebanese. The Israeli authorities are not reporting all the ambushes that now occur, particularly those in the Tyre area, unless they suffer casualties.

There were several reports from southern Lebanon yesterday that Israeli tanks and helicopters were scouring an area north of the Litani river after a mass breakout by prisoners at the Ansar prison camp in southern Lebanon, where more than 4,000 Palestinians and Lebanese are being held by the Israelis.

The Israeli authorities in Tel Aviv said that the situation at Ansar was "normal" although several roads in the district had been cut off by the Israelis yesterday afternoon. There have been constant reports of unrest at Ansar and in the nearest town, local Lebanese spoke of clouds of smoke hanging over the camp during the morning.

Altar protest puts Begin on the rack

From Christopher Walker, Jerusalem

Of the rash of anti-war protests staged throughout Israel since the invasion of Lebanon, none has been more disquieting for Mr Menachem Begin, the Prime Minister, than the symbolic altar for the Israeli dead which has been erected outside his front door for the past two months.

At Sunday's stormy Cabinet session, a number of ministers called for the removal of the clock-like vigil to be staged after hearing from Mr Begin about "the personal suffering" which it was causing him. But the demand was rejected by Dr Joseph Burg, the veteran Interior Minister, who explained that it had all the necessary permits.

The tools of the demonstrators - all Israelis who claim no particular party allegiance - are stark and few. They include a makeshift scoreboard of the latest death toll, a memorial candle for the fallen, a mock-up of the Lebanon campaign ribbon which more than 1,000 reservists have already returned and posters calling for an urgent withdrawal.

This is a unique war for Israel and a unique type of protest to go with it. We hope we are like a Chinese torture dripping down on Mr Begin's conscience," explained Mrs Edna Nashiv, one of the two volunteers maintaining the altar vigil yesterday for a four-hour shift.

Those gathered round the altar less than 25 yards from the gate of Mr Begin's official residence, included a 67-year-old pensioner who expressed

backing for an immediate pull-out and a retired university professor of 80. He claimed that Israeli troops were being used as "mercenaries" to defend American interests and predicted that the 500 death toll could double.

Despite the proximity of the altar to the Prime Minister's house (it was initially even closer until moved back by police), the demonstrators claim that he has never looked in their direction or crossed Balfour Street to hear their point of view.

"We are happy to hear about his suffering, at least it shows we are getting through," Mrs Nashiv said. She is an office administrator with a 16-year-old son who will soon begin his military service. "This was not a war that Israel was forced to fight this time we had a choice."

The protesters refrain from shouting slogans or accusing disinterested passers-by, maintaining that their silent presence beside the flickering candle and the ever-growing death toll will in the long run prove more effective.

In the weeks that the demonstration has been in progress, the number on the scoreboard has risen from 476 to 500. The large figures, drawn in red ink and kept up-to-the-minute, have become a sad landmark for many Jerusalem people who follow the busy street on their way to work. Some stop their cars and get out for a minute to stand with bowed head before the memorial flame.

US envoy ends Latin American tour in Mexico

Mexico City (AFP) - Mr Richard Stone, the roving US ambassador spent the last leg of a 10-country Latin American tour in Mexico.

President Reagan's newly-appointed special representative had already visited El Salvador, Costa Rica, Panama, Colombia, Venezuela, Honduras, Nicaragua, Guatemala and Belize.

Diplomatic sources and Foreign Ministry officials here said the Stone visit would be an occasion to review basic US and Mexican differences over the origins of the blank fort and the possible solutions to Central America's conflicts.



Flying fur: How to escape from a blazing building, by a raccoon that made it in Boston. Take a deep breath. Look before you leap. Manfully face the target. Free fall to the ground 30ft below and run off into the woods near by.

Hawke explains Vietnam aid at White House

From Mohsin Ali, Washington

Mr Bob Hawke, Australia's Labour Prime Minister, met President Reagan here yesterday. They reviewed Vietnamese and other international issues, economic relations and long-standing defence ties between their countries.

Administration officials discounted the idea that Mr Hawke's position to the political left of Mr Reagan could cause some difficulties between them. One official said: "Our relationship has been strong in peace and war and does not depend on which party is in power in either country." He pointed out that both governments attached the greatest importance to the Anzus (Australia-New Zealand-US) defence alliance in the Pacific.

The official told reporters there were no serious bilateral problems. However, he said the Reagan Administration was concerned about Mr Hawke's intention to resume economic aid to Vietnam before Hanoi withdrew its forces

Royal tour of Canada Lighter schedule for Princess

From John Best, Ottawa

The Prince and Princess of Wales arrive in Nova Scotia today to begin a 17-day visit to Canada. It will take them to five of Canada's six eastern provinces - all except Quebec - and to the western province of Alberta.

Prince Charles will officially open the World University Games there on July 1, just before he and Princess Diana fly back to London. The Princess will celebrate her twenty-second birthday the same day.

The day before the games open the Prince will tour the "shelter" village and have a buffet lunch with competitors in a cafeteria.

The Ontario part of the Royal visit, June 20-22, will be confined to Ottawa, and the region of the national capital. It will include a walkabout on Parliament Hill, the inauguration of a police station, and a barbecue at Kingsmere farm, in the Gatineau hills, at which Mr Pierre Trudeau, the Canadian Prime Minister, will be the host.

In Ottawa, the royal couple will be guests of Mr Ed Schreyer, the Governor-General, and Mrs Schreyer, at Government House.

The official programme, as released by the Prime Minister's office, appears to be a shade light on activities for the Princess of Wales. At a number of points, it lists activities for the Prince alone while there are no solo functions listed for the Princess.

Most of the tour will be centred in Canada's four Atlantic provinces, where the Royal couple will make extensive use of the royal yacht Britannia as a floating home. These provinces contain some of Canada's oldest settlements and the visit will be full of activities with historic associations.

For instance, Prince Charles will tour Annapolis Royal, founded in 1604 and believed to be the oldest continuously inhabited town in North America.

In Shelburne, Nova Scotia, he will view buildings recalling the thousands of United Empire Loyalists who settled in that area 200 years ago, after fleeing the American Revolution. At Saint John, New Brunswick, Prince Charles will lay a wreath at a Loyalist burial ground.

In St John's, Newfoundland, there will be the official opening of celebrations marking the 400th anniversary of Sir Humphrey Gilbert's arrival in Newfoundland.

All in all, the programme had a strong meet-the-people flavour, with numerous walkabouts planned, and plenty of opportunities for the public to see the Royal couple.

The ceremonial will be mostly on the right side. At least three official tree-plantings are planned and on most nights in the Atlantic provinces, the royal couple will be treated to military band-the-represent ceremonies before turning in.

In terms of public interest, the visit may rival the royal tour which Prince Charles's grandfather, King George VI, made with Queen Elizabeth, now the Queen Mother, in 1939, and that which the present Queen and Duke of Edinburgh made when she was still Princess Elizabeth, in 1951.

Fake nuns hid drug under their habits

Paris (AFP, Reuter) - Three Argentine women disguised as nuns were arrested yesterday at Charles de Gaulle airport in possession of 66lb of cocaine worth 2.5m francs (about £10,000).

After being alerted by the National Narcotics Bureau, airport police organized patrols and spotted three pretty women dressed as nuns waiting to catch a flight to Amsterdam. All had false passports and had arrived from Bogota, Colombia. The drug was found beneath their habits.

British woman freed in Athens

Athens - Christine Pitcher, a 34-year-old Bristol woman serving a prison sentence here on narcotics charges, was set free yesterday after doctors said her addiction to heroin was under control, Mario Modiano writes.

Miss Pitcher claimed she was tortured by Athens police after her arrest with a West German in January 1982. Sentenced to four years for drug offences, she has been released almost two years early under legislation encouraging medical treatment.

Libya 'backing Sardinia rebels'

Cagliari (Reuter) - Libya has offered arms and money to bolster the separatist movement in Sardinia, according to Signor Mario Marchetti, a magistrate investigating an alleged separatist plot to end Italian control.

The first contact was through the Libyan Consulate in Milan in April 1979, he said, and a firm offer of arms and money was made during a Libyan festival in Sicily in October, 1981. Only the arrest of several separatists prevented the deal.

Seoul warning

Seoul (AP) - Mr Kim Sang Hyup, the South Korean Prime Minister, termed the recent hunger strike by Mr Kim Young Sam, a former opposition leader, "very regrettable" and said the Government may take action if social stability is threatened. He was speaking at the opening of a 10-day National Assembly session.

Muslims freed

Karachi (Reuter) - Military authorities have freed more than 300 religious militants detained in Karachi earlier this year during clashes between Sunni and Shia Muslims in which at least 12 people died, prison sources said. In April military courts sentenced more than 250 to be jailed and flogged.

Mob fired on

Delhi (AFP) - Three people were killed and seven wounded when police opened fire on a crowd trying to set fire to a police station at Nasik, in the western state of Maharashtra. An 18-hour curfew was imposed after shops were damaged by mobs protesting against the removal of statues of local heroes from the towns centre.

Mixed force

Hongkong - More than 200 women are serving in the Royal Hongkong Police Force - about a tenth of its strength - and more may be recruited after the arrival next month of Sir James Crone, former Chief Inspector of Constabulary at the Home Office, for talks on reorganization of the force.

Police protest

Paris - Three right-wing police unions have said they will hold an indoor protest meeting next Monday after a Government ban on a "silent march" called for Thursday against the dismissal of union leaders. All police unions on Thursday have been called.

Mosaic found

Damascus (AFP) - A vast fifth-century mosaic measuring 500 square yards, has been unearthed during work on the site of an ancient cathedral at Hama in central Syria. It was announced here. It bears several geometric designs in well-preserved colours.

Cyprus crash

Nicosia (Reuter) - A British Army pilot, Warrant Officer Anthony Davies, serving with the UN peace-keeping force in Cyprus, was seriously injured when his helicopter crashed in the mountains near the buffer zone separating Greek and Turkish Cypriot forces.

High streets

Brest (AP) - The town of Brest in Brittany yesterday began cleaning up more than 200 lbs of smelly dead fish dumped by independent fishermen protesting against illegal fishing by big trawlers.

Misty eyed

Jakarta (AP) - More than 33 people reported blurred eyesight after looking directly at a five-minute total eclipse of the sun over central Java. Officials said normal sight could return in about two weeks with proper medical care.

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WALLES WORKS WELL IN MID GLAMORGAN

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Moscow

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Nuclear missiles in Europe

Moscow tackles dilemma over Nato

From Richard Owen, Moscow

Key meetings of the Soviet leadership this week may provide an insight into the dilemma facing the Kremlin over proposed Nato missile deployments in Europe, according to diplomatic sources here.

A two-day session of the Central Committee begins today, followed by a meeting of the Supreme Soviet. Much attention will be paid to domestic issues such as ideology and the economy, and Mr Yuri Andropov's health. But the Soviet leader may use the occasion to clarify Moscow's response to the planned deployment of cruise and Pershing missiles in Europe by December.

Sources said the Russians felt that the December deadline had put the pressure on Moscow either to "raise the stakes" by moving Soviet medium range rockets into Eastern Europe and the Soviet Far East, or to make concessions at the Geneva arms talks.

The Soviet leadership had been taken aback by a series of uncompromising firm Western statements over Euro-missiles, the sources said, including the Williamsburg summit at the end of May and the Nato foreign ministers' meeting in Paris last week.

Soviet officials have taken note of the sweeping election victories for conservative parties in both Britain and West Germany, and the failure of peace movements to mobilize electoral opinion in Western Europe on behalf of unilateralism.

President Mitterrand's firm support for Nato policy has caused further gloom in the Kremlin, reflected in a series of press articles criticising French activities in Africa.

Mr Andropov reflected the Kremlin's dilemma last week, during a banquet for President Koivisto of Finland, when he repeated the tough warning of a direct Soviet response first

issued in a Government statement on May 28, but added: "We are ready as always for a fair and equal agreement, provided it does not leave us defenceless in the face of hundreds of Nato nuclear rockets to which we have no equivalent deterrent."

The Soviet Union has taken a sceptical view of President Reagan's offer of flexibility at the Strategic Arms Reduction Talks (Start).

However, Mr Andropov is thought to be attracted to the idea of a summit meeting with Mr Reagan, and the Soviet press gave prominence to Mr Averell Harriman's recent talks with the Soviet leader. Tass quoted Mr Harriman as saying after his return to America that Moscow and Washington had got to begin talks sooner or later.

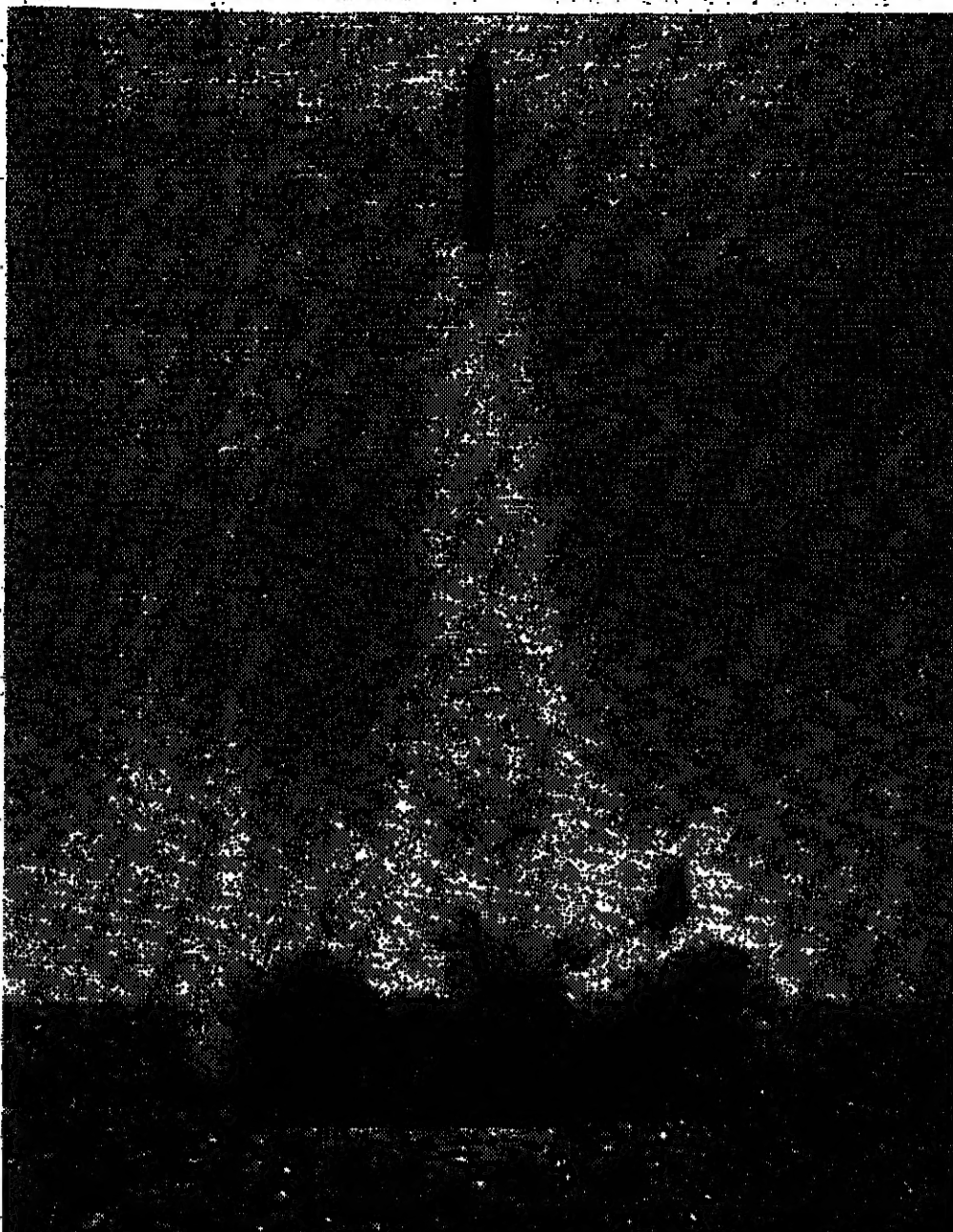
● COPENHAGEN: The Nordic countries are considering their next move on the possible establishment of a nuclear-free zone comprising Scandinavia, adjoining Soviet territories and the Baltic, Christopher Follett writes.

Mr Andropov indicated last week that Russia would be willing to discuss the issue.

Mr Olof Palme, the Swedish Prime Minister, yesterday told a plenary session of the North Atlantic Assembly in the Danish Parliament that the zone would include Denmark, Finland, Norway, Sweden and Iceland, their sea and airspace.

The possibility of a non-nuclear-free channel through the Baltic for Soviet craft would be left open.

Mr Palme urged support for the recommendations of the so-called Independent Commission on Disarmament and Security Issues, which he chaired and which last year recommended the setting up of a 190-mile wide nuclear weapon-free corridor through Europe between East and West.



Up and away: The first of two successful Polaris missiles being launched 30 miles off the Florida coast by the submarine HMS Revenge. Earlier this week, one of two missiles fired by the Revenge had to be destroyed after malfunctioning.

Canaries counting on Soviet shipping

From Richard Wigg, Las Palmas

Tighter controls over the Soviet fishing fleets which regularly visit the Canaries, the curbing of espionage risks and more local repairs and resupplying of ships are being sought by Señor Jerónimo Saavedra, chief minister of the Canary Islands' first autonomous regional government.

The Canaries are the Russians' biggest facility in the West, and we want them to give us more for letting them use it. The Franco regime traded this asset far too lightly," Señor Saavedra, a Socialist law professor, aged 46, told *The Times* before the swearing in today of his 10-man Cabinet.

The government of Spain's most far-flung autonomous region, which consists of seven islands in an archipelago stretching westwards from only 70 miles off the African coast, pins its hopes on a new shipping agreement signed in Moscow last month by Señor Fernando Morán, the Spanish Foreign Minister. This replaces official

letters exchanged between Madrid and Moscow in the 1960s.

"We asked Madrid that there should be no reduction in the Soviet fleet's use of our facilities, since any cut would mean a serious blow to the island's economy."

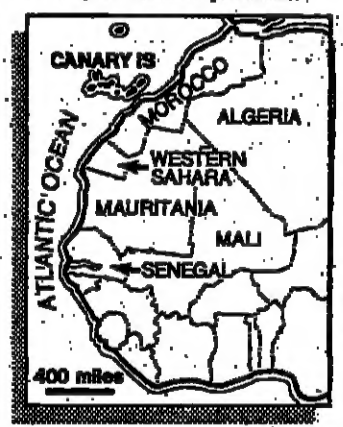
Last year more than 1,100 Soviet fishing boats and auxiliary vessels used the ports of Las Palmas and Santa Cruz, as staging ports on their way to the South Atlantic. Other Soviet cargo and passenger vessels also call in at the Canaries.

The Russians are the biggest users of these two ports after Spain. Señor Saavedra denied, however, there was a risk of over-dependence on them. He said that Japanese, South Korean and South African ships, the crews of which have greater individual purchasing power than the Russians, made far balance.

Under the new shipping agreement the Russians will no longer be able to stay anchored

in the bay but will be required to tie up alongside. Repair work by Spaniards in the local yards, rather than Soviet technicians flown in direct from Moscow, should reduce the loopholes Moscow has exploited for introducing intelligence agents.

Police controls are also to be tightened; smuggling by Russian sailors, as well as those of other nations, is a serious problem.



Soviet seamen on shore offer wrist watches, which can be purchased at bargain prices in certain streets here, and then buy Western jeans, shirts and, oddly enough, umbrellas to sell back home at black market prices.

The Canaries, one of the best Spanish regions to set up an autonomous administration, offer a tough challenge to Spain's devolution process under the Socialist Government. Under development and chronic inter-island rivalries have gone hand-in-hand with more central government subsidies per head of the 1,500,000 population than for any other region of Spain.

The Socialists start with a serious drought, high unemployment (20 per cent of the working-age population), a high birth-rate, which means that almost half the population are under 25, and fishing restrictions imposed by Morocco in the waters off Western Sahara.

Top young bullfighter loses eye

From Harry Debelius, Madrid

Triumph turned to disaster for a young bullfighter recovering in a Seville hospital after the bull's horn gouged out his right eye in front of thousands of spectators.

Lucio Sandin, aged 19, a pre-university student from Madrid, and a novillero, or apprentice bullfighter, had 15 days ago been carried in triumph from the famous Maestranza bullring in Seville on the shoulders of delighted fans.

He returned on Sunday to the Maestranza as the major attraction on a programme with two other novilleros.

The torero took off his hat and made a figurative sweep round the arena with it, dedicating the bull to the public.

A 937lb black fighting bull calf knocked him down.

The animal lowered its head and plunged one of its long sharp horns into the man's right eye socket.

China looks for Liao successor

From David Bonavia, Peking

Chinese leaders are believed to be holding last minute discussions on the choice of a vice-president to replace Mr Liao Chengzhi, the most widely-tipped candidate, who died two days ago.

The New China news agency has confirmed that a president and vice-president will be named on Saturday, and other high offices—especially that of the chairman of the military affairs commission—would also be filled soon.

Mr Li Xiaonian, who is 78, is generally expected to be president—a post which has not been filled since the departure of the late Liu Shaoqi in 1967, and his death in prison two years later.

Mr Liao, an expert on Japanese and overseas Chinese affairs, died at the age of 75, and no other person of equivalent seniority will be able to replace his authority and appeal in East Asia.

Conditions ease for lone rower defying reefs

From Tony Duboulin, Melbourne

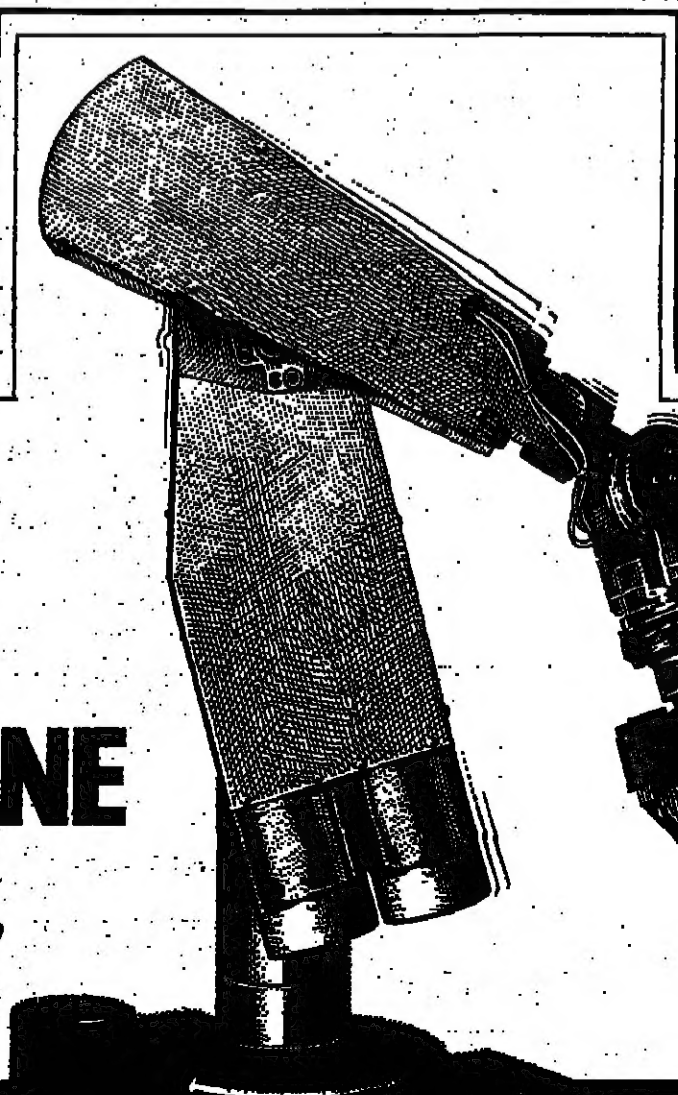
Peter Bird, the London photographer and rower extraordinary was nearing the end of his 10-month solo voyage across the Pacific yesterday but still faced the extremely dangerous task of negotiating a path through the treacherous reefs of the far northern coast of Queensland.

Late yesterday, Mr Bird, aged 36, was reported to be more than 100 miles north-west of Lizard Island close to the Great Barrier Reef. He is expected to make land somewhere between

Raines Island and Cape Weymouth, near the top end of the Cape York peninsula.

One of Mr Bird's sponsors spoke to the lone rower yesterday and reported that Mr Bird said conditions locally were moderating despite forecasts that the weather in the area was expected to deteriorate. He was reported to be "very relieved" to be near the end of his journey.

The area where Mr Bird is trying to make way through the reef is poorly charted.



Ramadan reasserts old values

Moroccans fast in daylight but feast by night

From Godfrey Morrison, Rabat

Women's hairdressers and cosmetic salons will be doing a very thin trade here over the next four weeks.

Ramadan, the Muslim fasting month, began in Morocco yesterday and hair adornment and make-up are two of the many prohibitions which transform life styles throughout the Islamic world during this month of self-denial and spiritual reflection.

Paradoxically, grocers—particularly those selling dates, nuts, exotic fruits, honey and other delicacies—will be doing a roaring trade and the local press has already complained about the annual price surge.

The start of Ramadan is controlled by the Islamic lunar calendar and on the sighting of the new moon. The fasting almost always begins and ends last in Morocco. It began in Saudi Arabia and the Gulf states on Saturday.

The total abstinence from

all food and even non-alcoholic drink from dawn to dusk is the best known feature of Ramadan but there are many other ways in which life changes.

European tourists will be thronging the country's beaches but few Moroccans, because daytime bathing is forbidden. Sex before nightfall is also out.

Ramadan, apart from its religious significance, is also a time for the reassertion of traditional values in Muslim countries, many of which have been marked by Western culture. Many Moroccan women, particularly in the towns, usually follow Paris fashions—but during Ramadan many revert to the *jellaba*, a ground-length robe with a hood.

The observance of Ramadan varies from country to country. President Habib Bourguiba of Tunisia has in the past recommended a certain flexibility. For instance, Islamic law exempts from total fasting

a people at war, and President Bourguiba has argued that his country is at war against economic underdevelopment.

Ramadan slows the pace of economic and administrative life.

But Rabat is never livelier at night than during Ramadan. Streets usually deserted by 9 p.m. are thronged until the early hours with families strolling to listen to traditional music played in squares from which traffic has been banned.

It is also a time for family reunions and housewives prepare midnight feasts. Several Moroccans have told me that they probably eat more during Ramadan than at any other time, which explains the grocers' booming trade.

Though it is a time for religious reflection and the reassertion of traditional values—and people certainly suffer during the day—here, at least, Ramadan is not entirely a sackcloth and ashes affair.

Lawyer tells court of officers' terror

From Stephen Taylor, Harare

A lawyer told the Zimbabwe High Court yesterday that he had been shocked at the appearance of the former deputy commander of the Zimbabwe Air Force and another senior officer when he visited them in prison after their detention last year.

Mr Michael Hartmann said Air Vice-Marshal Hugh Slater and Wing Commander Peter Briscoe had "a look of sheer terror in their eyes." They were trembling, ash-faced and very nervous, he added, and at one stage Air Vice-Marshal Slater had comforted Wing Commander Briscoe, "as you would a child".

He was giving evidence before Mr Justice Dumbutshe at the start of the fourth week of the Thornhill sabotage trial. Six white Air Force officers have denied complicity in the sabotage of aircraft, claiming they were forced to confess.

Mr Hartmann, who formerly represented Air Vice-Marshal

Slater, said in the period immediately after he was consulted by Mrs Jane Slater he had not been concerned about the officer's treatment in custody. One of the investigators told him Air Vice-Marshal Slater would be released within days.

But after being refused permission to see his client he came to the conclusion that he was cynically being denied access. When he took the matter up with a member of the Central Intelligence Organization (CIO), he said he was told: "You cannot have access because we are still working on him."

"Wing Commander Briscoe at one time expressed horror at his treatment", Mr Hartmann said. "Air Vice-Marshal Slater put his arm around him to comfort him as you would a child and said words to the effect: 'Don't worry. We'll see it through. God is with us and we have done no wrong.'"

Radio Free Europe head quits

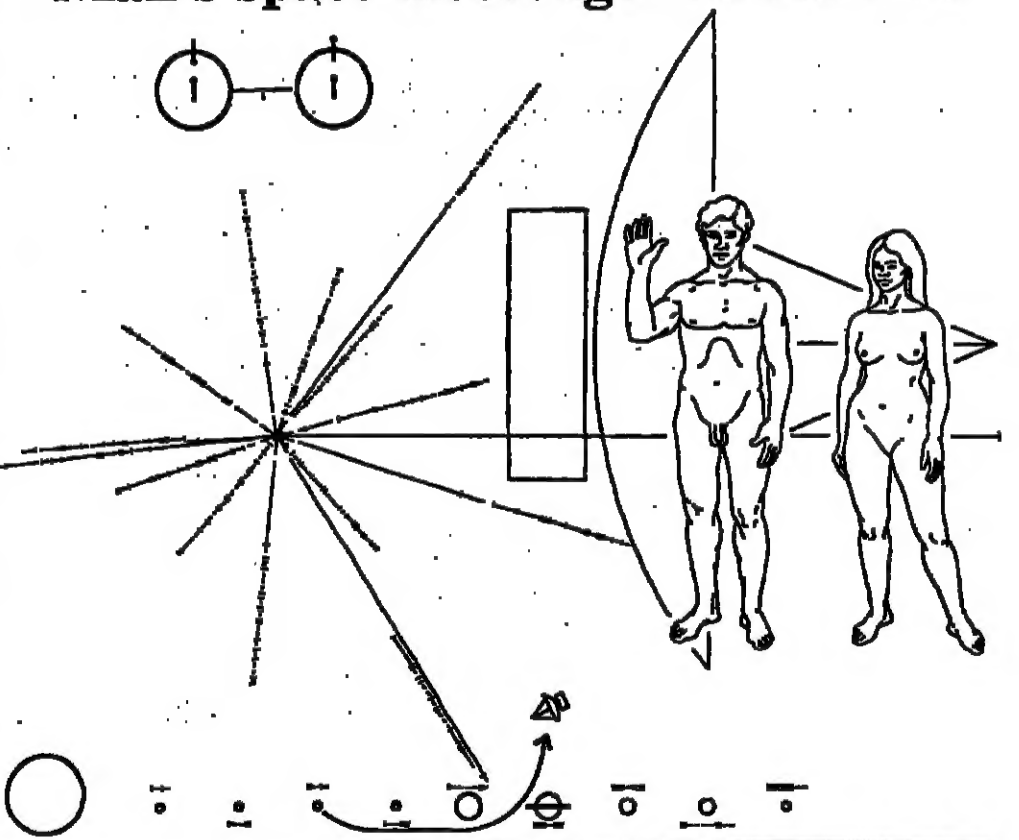
From Michael Binyon, Bonn

Mr James Brown, director of Radio Free Europe for the past five years, has resigned, the Munich-based station announced at the weekend. He will, however, remain until the end of the year as an adviser to Mr James Buckley, the RFE president. His deputy, Mr Robert Hutchings, becomes acting director.

A spokesman for the American-financed station, which broadcasts to Eastern Europe, denied rumours that Mr Brown had resigned because of policy differences with Mr Buckley, a conservative former New York Senator appointed by the Reagan Administration.

Radio Free Europe has attracted a very wide audience in Poland in the past three years, and has been strongly attacked by the Warsaw Government.

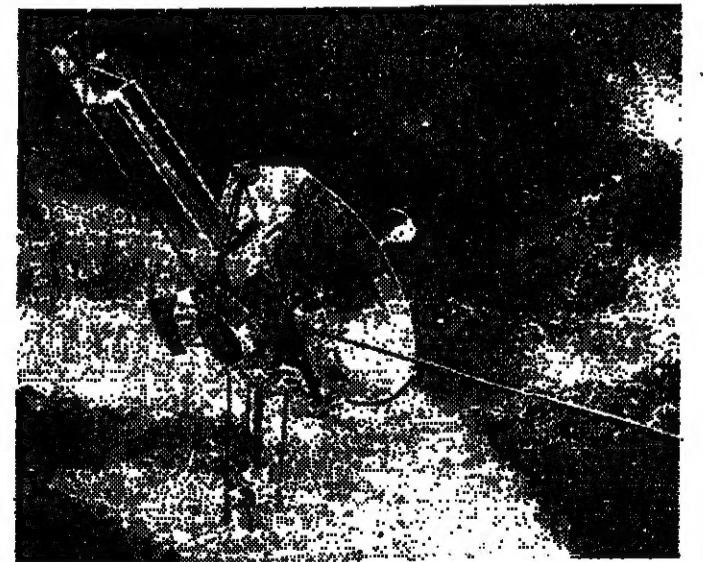
Man's space messenger on startrek



Pioneer 10, which became the first man-made machine to leave the solar system yesterday, carries a message (above) from mankind.

Engraved on a plaque are a series of scientific symbols from which it could be calculated—if the spacecraft encounters forms of intelligent life—who sent them and from where. It also shows a chart of the nine planets of the solar system, marking the one that sent the message, and a naked couple.

The quarter-ton spacecraft (artist's impression right) with its parabolic antenna pointing back to Earth had a planned life of 21 months when launched in 1972.

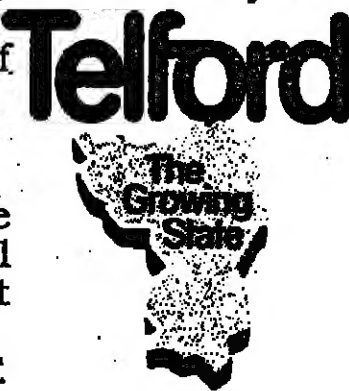


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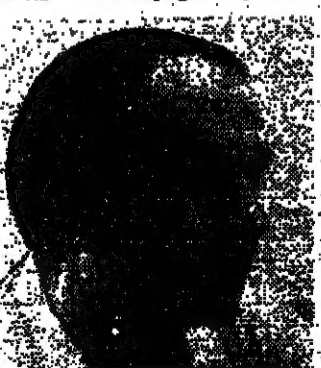
Yugoslavia: Vlado Gotovac

By Caroline Moorehead

Vlado Gotovac is a writer, poet and editor from Zagreb in Croatia. In 1973 he was among members of a "Croatian nationalist movement" arrested on political charges and sentenced to four years' imprisonment.

In 1981 he was again arrested and charged with having "maliciously and untruthfully represented socio-political conditions in the country with assistance from abroad" and of having "provoked national hatred and hostility by means of propaganda." These charges were based on the content of three interviews that he had given to foreign journalists between 1977 and 1980 in which he had asserted his belief in freedom of speech and discussed the historical problems of his region.

Mr Gotovac was found guilty by the district court of Zagreb. On January 20, 1982, after a failed appeal, he began serving a two-year prison sentence in Lepoglava prison.



Mr Gotovac: Three interviews.

**THE BRAINS
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SPECTRUM

Only four singles players in the history of tennis have mastered the grand slam's sequence of grass, clay and hard courts. In the second of three articles on the game's changing face, Rex Bellamy examines the international circus

Poetry, prose and priorities

The tennis circuit has its own monarchy, providing continuity and stability in times of radical change and, often, unrest. The first among equals in the game's international community could more accurately be described as a regency - that exercised by the grand slam championships of Wimbledon, the United States, France and Australia, all of which are big-entry tournaments spanning two weeks.

The four nations concerned dominated men's tennis until the second World War and, in spite of a relative decline by Britain and France, kept the Davis Cup to themselves until 1974. A grand slam - the term was borrowed from bridge, which used to be popular among off-duty players - consists of winning all four championships in an unbroken sequence.

Oddly, it was not until last year that the grand slam was granted official status. But the feat was so rare that those who achieved it became legends. It does not take long to list them: Donald Budge, Rod Laver, Maureen Connolly and Margaret Court in singles, Frank Sedgman and Ken McGregor in men's doubles, and Ken Fletcher and Mrs Court in mixed doubles. Maria Bueno (women's doubles) and Owen Davidson (mixed doubles) were slightly different in that each had two partners during their all conquering progress round the world.

Laver did it twice, as an "amateur" in 1962 and as a professional in 1969. Chris Lloyd will join the elite if she wins the women's singles at Wimbledon this year. By the end of the year there could be an absurd contradiction in women's tennis because Martina Navratilova may win this year's inaugural world championship. Mrs Lloyd's performance would undoubtedly take precedence.

The women's game is better organized than the men's, and it is hardly surprising that, this year, they became the first to institute an official world championship series, with a graded points system for six different categories of tournaments. The mistake they made was to include so many events that the concept as a whole was devalued by the moderate quality of most of the components - in short, too many vegetables and not enough meat.

The only way to give a world championship the distinction it deserves - and make it impossible for a grand slam winner to finish second - is to restrict the series to, let us say, half a dozen tournaments that meet strict criteria. The grand slam championships have set an appropriate pattern that would not need much adjustment. But a world championship series must be a microcosm of the game as a whole, a balanced sample of the



Feet on clay: Yannick Noah and Chris Lloyd were the winners at the French leg of this year's grand slam

surfaces on which tennis is most commonly played.

The grand slam is not - because the Wimbledon and Australian championships are both contested on grass. This is a rarity on the professional circuit and none too popular among the players, because its playing qualities are so unpredictable. What a paradox it is that formal, conventional old Wimbledon is the place where players most often have to gamble and improvise.

The French championships are played on the gritty surface known as clay or shale. Compared with grass, this takes the pace off the ball and gives players more time for their shots. It demands a controlled facility in sliding into position. The rustle of shoes on shale gives clay-court tennis a sound that is all its own.

In terms of strategy and tactics, the French championships produce the game's loveliest poetry and drabdest prose. Artist and artisan flourish side by side. It is so difficult to put the ball away that the craft of manoeuvring for an opening encourages every technical

and tactical trick in the book. Equally, the French championships pay rich dividends to anyone who has the patience and stamina and ball control to stay on the base-line all afternoon, making little effort to win points - just waiting for the other player to lose them.

There is much drudgery in the tennis, but there are also passages of surpassing beauty. Climbing mountains is rather like that: tough on the legs, but a joyous aesthetic experience. The smash-and-grab raids of Wimbledon, where rallies tend to begin and end almost simultaneously, cannot challenge the subtle magic of clay-court tennis at its best.

Patrick Cash, an Australian teenager with a natural predilection for grass, recently spent 10 weeks on the clay courts of Europe. "To be an all-round player," he says, "you must be able to play on every surface. So I decided to come in March, guts it out, and learn. It takes years to learn how to play on clay. On

grass, you know what you are doing to do - serve and volley, and smash. On clay you can do a lot more."

Jimmy Connors has never reached the final of the French championship in seven attempts. John McEnroe has competed four times, and has yet to reach the semi-finals. This year, though, McEnroe played well enough to suggest that one day he could win the French title if he really set his heart on it. "There's room for improvement," he says. "I need more work on clay, but I don't feel motivated to face the job."

Those two weeks in Paris are a wearying ordeal for players who also want to do well at Wimbledon, and some point out - reasonably - that it does not make much sense to have two "majors" only a fortnight apart. That is not much time in which to recharge the batteries, adjust the technique and the thinking to a sharply contrasting surface, and get "psyched up," as they say, all over again.

The summer succession of Paris, Wimbledon, and Flushing Meadow (home of the US championships) is a formidable diverse test. One of the most admirable features of these three great tournaments is that they are the ultimate test of a player's ability on the three best-known outdoor surfaces.

Whereas Wimbledon favours the "big" game and Paris the specialist in ground strokes, Flushing Meadow is a compromise between the extremes of pace. In cricketing parlance, its hard courts might be described as fast-medium, and therefore provide a more equitable test. The foreground is a more promising battleground than the baseline, but specialists in ground strokes have a better chance at Flushing Meadow than at Wimbledon.

The snag about hard courts is that their jarring effect can be damaging for the legs, muscles, joints, everything. But the stress of unexpected slides on grass is bad for the groin muscles, and in Paris players must beware of cramp. Every surface has its perils.

Within five years Connors had the unlikely experience of winning the US men's singles title on three different surfaces. Traditionally played on grass, the tournament was shifted to clay at the same venue, Forest Hills, in 1975. These clay courts were faster than the European version, but were still too slow to suit the American temperament. So hard courts, the type most familiar to US players, were installed at Flushing Meadow when the championships were moved to their new home in 1978. None of it made any difference to Connors.

Hard courts have also been chosen for an enterprising event that will be inaugurated in 1985 and based in Florida. The two players' associations will be heavily committed in the

promotion of the International Tennis Players' Championships, which will be played at Boca West for two years before moving into a new, permanent home at Weston in 1987. The tournament will probably be played in the February-March period.

The exciting thing about this venture is that it will keep faith with the grand slam model: a five-event tournament lasting two weeks, with a draw of 128 in the men's and women's singles, and the men playing over the best three out of five sets in both singles and doubles. Tennis should thus have five "majors".

The men's entry of the Australian championships has declined during the past decade, particularly since 1978, when the grand prix Masters tournament (a showpiece event for the year's most successful men) was given a permanent base in New York in January - traditionally the heart of the Australian season. Last year the Australian tournament was moved forward, overlapping November and December.

There are plans to return to the beginning of the year in 1985 and to improve the facilities at Kooyong (Melbourne) as part of a comprehensive scheme designed to restore past splendours. But the players, certainly, the men, no longer need the Australian championships as much as they used to: there are other ways of making money.

Arthur Ashe suggested recently: "Most players don't care about titles. Their first priority is the amount of money they can make." We certainly have to accept the fact that the "majors" are not the irresistible challenges they were 20 years ago. Yannick Noah, José Higueras and Eliot Teltscher will be on holiday during Wimbledon. Others take a break during the French or US championships. They play the tournaments that make most sense to them.

There is, of course, a great deal more to the "majors" than the prestige and prize money they command, and the surfaces on which they are played. At all tournaments, players are sensitive to what might be described as their working conditions: the organization, the scheduling of matches, the quality of court officials, the hotel accommodation, and the "arrangements for catering" and transport. The more players enjoy a tournament, the more likely they are to go back to it.

Part of the enjoyment is the ambience. This can be difficult to define, but the location, the weather and the crowds are prime components. Two Americans who were ill at ease on clay but kept returning to Paris were Ashe, who found clay courts a fascinating intellectual challenge, and Stan Smith, who used to say that he and his wife simply liked the food.

Paris scores, too, because of the sunny weather prevalent in the May-June fortnight. Wimbledon is losing contact with the English summer and Flushing Meadow tends to be muggy. On the other hand, most overseas players seem to be happier in London than they are in New York, which strikes a discordant note for many Europeans, or in Paris, which can pose cultural and linguistic problems to Anglo-Saxons.

As for crowds, those at Wimbledon are the most overtly civilized in their behaviour, those at Flushing Meadow the most sociable, easy-going and lively, and those in Paris the most warmly responsive to artistry and character. Wimbledon could be likened to a church social, Paris to a village fête, and Flushing Meadow to a faringround; and all that is reflected in the collective personality of the crowds.

The weight of tradition is pushing the grand slam championships forward, rather than inducing a smug conservatism. Every year they are bigger and, in most ways, better. They have to be, partly because of the rivalry between them and partly because they want to maintain their supreme collective roles among the world's tournaments. Fortunes have been spent in an effort to establish tournaments of similar status. But the special magic of the "majors" is an elusive commodity.

moreover...
Miles Kington

Mailer on holiday

It's time to start planning your holiday reading. What you need is not just books that look nice and feel nice, but books that can safely leave behind on holiday, or at the airport, before you depart, or when you want to remove them in your absence, that they'll still be there in a year's time.

So here is our list from the new summer books.

The Country Diary of Adolf Hitler
A charming, recently rediscovered volume of drawings and nature notes by the late Chancellor of Germany. He used to make on-the-spot sketches of what he saw around him, and his observations were admirable, even if his notes seemed to be written in a hurry. The book is a blonde, blue-eyed bird, for instance, and his desire to fill all Europe with German fauna and flora. His obsession with protecting rare species in Poland and Czechoslovakia is puzzling, though it explains the events of 1939. Another mystery is cleared up by the entry: "Ruc Hess not yet back from grouse-shooting hope all is well with him."

The Cambridge Footlights
The first complete history of this sinister Cambridge organization. Ostensibly just a collection of first-class brains was in fact a recruiting ground for unscrupulous men from the BBC persuaded them to abandon life as we know it and go over to television. One of the saddest cases is that of Jonathan Mill who was trained for a career in medicine and has spent most of his life trapped in Television Centre.

The Ancient Egyptian Elections
The first of a series of historical books which Norman Mailer intends to cover the elections of Ancient Egypt. This one covers 900 pages, follows the campaign of Menphroep I who ran on a ticket of more bread, cheaper papyrus and conquering the known world. The excitement of primaries in Thebes and Alexandria, the up to an almost unbearable climax as, voting day, Menphroep kills all his rivals. Another fine book from the greatest of American writers.

Nostradamus
The great problem with translating French writers is that the main virtue of French language is its complete incomprehensibility, and of nobody is this truer than Nostradamus, the medieval French tank. Luckily, all is explained for us in new edition. One of his most impressive forecasts is: "A great leader will gain 42 cent of the vote, leaving only 29 per cent for a white-haired old man and 26 per cent for the nicest, but most ineffectual person you could hope to meet. A man called Parkinson will come out of it well."

The Diaries of A. J. P. Taylor
Purporting to be the journals of the great British historian Alan Taylor, this book has been authenticated by many experts including Taylor himself, who says definitely remembers writing them. Yet text itself does not always bear this. One of Taylor's marriages is totally omitted, and the intermittently compelling tone of the book is quite at variance with what we know of the man himself. Opinion is now growing that these are, in fact, a not very successful forgery.

The Pope in Poland: A Pictorial Record
We are used by now to historic events appearing within a couple of days of their occurrence - often faster than the news pictures - but this is something of a complete record of an event which is not yet taken place. Included in the book are historic photos of the Pope meet Lech Walesa again, the arrest of the Poles by General Jaruzelski's men, the invasion of Poland by Russia, the revelation that the Vatican had nuclear weapons all along, the final dramatic scenes in which the Pope makes a sign and all is miraculously restored to the way it was before.

Superpriest: The Bruce Kent Story
Another attempt in cartoon strip form alert us to nuclear dangers. By day, Bruce Kent is an ordinary Roman Catholic priest, derided by his friend Sister Louise for contributing to world peace. Little does he know that when danger looms, Bruce Kent slips into the nearest confessional, strips his robes and becomes - Superpriest. Flying quickly to the scene of peril, he puts his impassioned arguments to the contents and appeals to the studio audience vote for peace and sanity. Chastened, wicked world leaders slink back to their arsenals and Superpriest goes back to humble calling.

"Gee," says Sister Louise, "way you are so dynamic and forceful for peace!" Superpriest, Bruce?

Bruce Kent smiles. His own secret is with him in the confessional.

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Wimbledon is still the Mecca of the faithful, but its success only disguises the problems which hinder the development of British players

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- Polluted fog (4)
- Producer (9)
- Greasy (4)
- Piercing (8)
- Tableland (7)
- Senior member (5)
- Cut (4)
- Light (6)

DOWN

- Force back (5)
- Hawthorn (3)
- Amazed (13)
- Metal currency (4)
- Glitter (7)
- Hard role (5)
- Hindu exercises (4)
- Citizen (4)
- Counterfeit (4)
- Bible giant (7)
- Noose (4)
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- Sob (4)
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8 Typsetting 12 Unsaid 14 Rex 15 Octave 19 Equable 20 H
24 Oril 25 Swat 26 Wall 27 Area

FASHION by Suzy Menkes

At last, the best of British

Taking art by the throat

Graham Sutherland's fierce lines are laid out on saxe blue silk. Matisse's stylized flowers bloom to the edge of the border. Topolski's colours glow bullishly.

It is hard to believe that the designs by renowned artists now on display at the Redfern Gallery were ever destined to be worn. Yet the Ascher scarves of the 1950s were part of fashion as well as collectors' items.

They were the fruits of one of the most imaginative partnerships between fashion and art. Zuka Ascher was fired with enthusiasm to illuminate the drab designs of post-war



Jean Arhan
Germination

Britain. To his small London print works he brought Henry Moore, who is captured on camera surveying his work in one of the archive photographs in the exhibition.

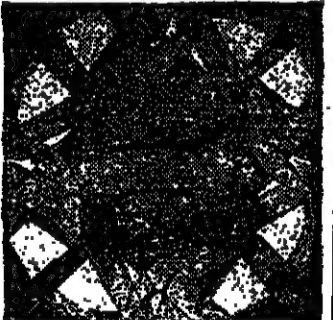
A giant Henry Moore panel (on sale at £8,500) is the grand design that is seen in more manageable (and buyable) form in the work by more than a hundred artists. They include Ivon Hitchens, Barbara Hepworth, Lucian Freud, Scottie Wilson and Derain, whose lively and slightly folk-



Alexander Calder
La Mer

loric couple and dog contrast with the mainly abstract designs.

I asked Mr Ascher how he had managed to involve so many major artists in his work. "It was relatively easy," he explained. "I made an arrangement with Henry Moore and with Feliks Topolski, although I had to sit in his studio to make him do anything. Then I went to Paris to talk to Matisse. His gallery agent told me I was crazy, so I looked him up in the

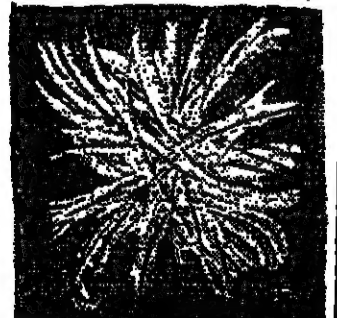


Barbara Hepworth
Landscape Sculpture

phone book and just talked to him.

Zuka Ascher is characteristically modest about the energy and effort needed to mobilize such a gallery of famous names and to translate their work on silkscreen. Only Michael Ayrton's spiky, threatening shapes ("I felt they were not pleasing") failed to make the transition to fabric.

The extraordinary artistic venture was never a money maker and Ascher abandoned it for his creations for haute



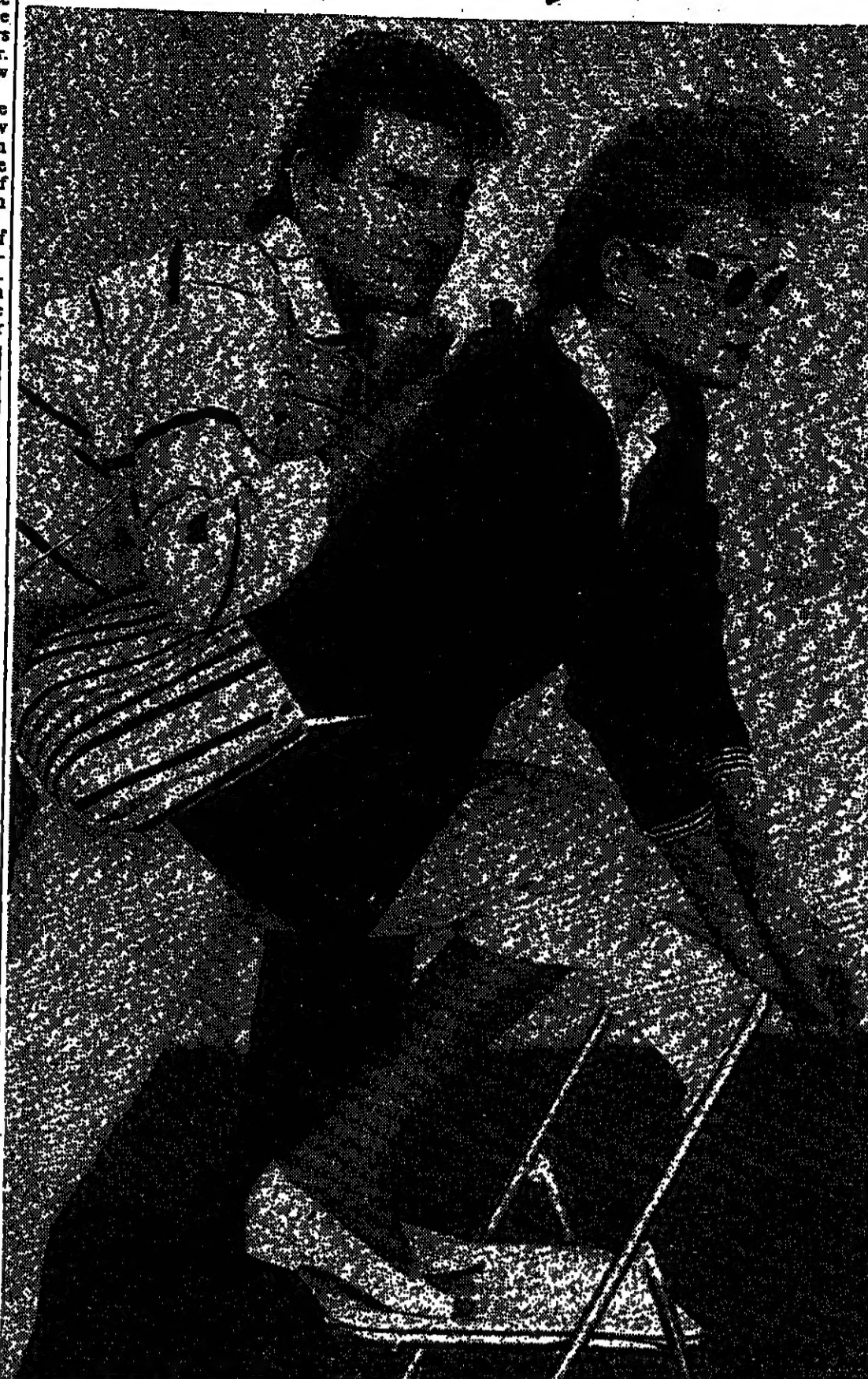
Nicholas de Stael
Ribbon Design

couture. He describes himself launching the 1950s flower print after running down the road after Christian Dior to ask the designer if he liked it.

Many of the original works of art were dispersed for small sums, although Mr Ascher's son Peter managed to buy back the striking, formal Matisse panel, badly damaged by water stains.

Some of the limited edition and other scarves are on sale from (£50-£200) and no doubt some of the silken squares of modern art are stored away in drawers waiting to be discovered as forgotten master works.

Ascher Textiles at the Redfern Gallery, 20 Cork Street, London, W.1, until July 14. Saturday's morning only, late night Thursday.



Left
HER: Navy cardigan £51. Striped polo shirt £23. White gabardine trousers £35. All in sizes 10-16 by Vivella limited Edition from Co-ordinates room at Harrods, Knightsbridge, SW1. White patent peep shoes £28.95 and striped canvas bag £9.99 both from Bally. Striped earrings by Adrien Mann. Rubber sunglasses £4 by Paul Smith. HIM: Hand print cruising shirt £39.50. Mint shirt £33. Navy trousers £31.75. Tri-colour cotton socks £3.50, all by Paul Smith from 44 Floral Street, WC2; 23 Avery Road, W1; 10 Byard Lane, Nottingham. Punched shoes £45.99 from selected Russell & Bromley branches.

Right
HER: White drill blouson with sea blue and white lining, sizes 8-16 £78. Matching culottes, white only, £49. Blue cotton T-shirt £13.50, also white, pink, apricot. From Aquascutum, Regent Street, W1; Harrods; Cavendish House. HIM: Sea blue cotton hooded parka, also pink, white, beige, £79. Dusty pink poly/cotton trousers £34. Shetland/cotton cable sweater £29, from Aquascutum, London. Jacket and trousers from Aquascutum, London Manchester and Bristol.



All the clothes on this page are British. That ought not to be a cause for comment, but is actually a cause for rejoicing, for a new wave of design is lapping against the more stolid British clothes.

Last Wednesday, Country Casuals celebrated their tenth birthday by showing a collection - for next autumn - in the new mood. Slim skirts, strong dolman-shaped knits, careful colour coordination and now a weekend range of casual separates have all loosened up their

look. This show completed a triumvirate of autumn presentations, including a sharp new collection from Jaeger, who have always been aware of design. Last month Alexon's show gave a soft new angle to their tailored clothes and they opened a shop in Bath, prettily decorated by Nina Campbell, to underline their change of image.

This summer, the final endorsement, has been given to the middle market of British fashion by the opening of Harrods' Co-ordinates Room,

featuring ranges by Alexon, Country Casuals, Planet, Westall and Vivella Limited Editions, all set against a fresh background that points up the clean lines of the classics.

I welcome the idea that coordinates are now something that you buy as a unit, rather than put together yourself from all ends of town. Pat Newell, the energetic fashion manager at Harrods, feels strongly that modern life is too short to spend in picking and choosing clothes.

The thinking behind the new room was to put the good British designers under one roof, and to include all their accessories - excepting shoes that demand particular fitting and stock arrangements. "The average woman simply hasn't got time to go round even the four and half acres which our store covers," says Pat Newell. "This department is the start of a whole new philosophy for us of lifestyle shopping. In the autumn, we will extend it to evening and after six clothes.

The idea is that a woman identifies the area in which she wants to shop and can then find what she wants".

Co-ordinated sportswear is the fashion trend of this season and the name of Aquascutum's first-ever summer range for both women and men. The inter-related separates in fresh colours and neat shapes are designed for our increasing share of leisure time, for holidays and for anyone whose style of dressing is casual but not sloppy. The blouson jacket

seems to be the important new shape at Aquascutum, with a bigger and bolder version expanded into a parka for men, made in soft colours like sky blue and dusty pink. Fashion is definitely smartening itself up. There is a feeling now for crisp, simple clothes that have pushed out the jumble of layered and peasant separates that spelt summer fashion throughout the 1970s. A stiff Atlantic breeze blows through the summer coordinates, with a lot of navy blue, sailor stripes,

rope trimmings and trousers appropriately at half mast. Skirts are getting slimmer, although there are still gentle gathers for those who want movement and a softer line at the waist. Culotte skirts and shorts are the warm weather alternatives.

Colours too are strong and simple, with a lot of white, brightened with sea blue, red, navy and the occasional flash of yellow. Sailor stripes are the key print with hardly a flower in sight. By sticking to a simple colour scheme, based on white, you could go away on holiday with a very small range of coordinated clothes, for the point about casual separates is that they do split up into different components to give maximum value for money, as well as making trim outfits on their own.

If it is all so simple, why has British fashion taken so long to come up with this winning combination? Many traditional fashion houses still fight shy of "design", although it was good to see the design teams being introduced to the press at the recent fashion shows.

When I wrote three months ago about the lack of well-designed British clothes in the middle price range, I had a big response from readers and from the smaller retailers that echoed my own feelings. There is now a strong sense that things are changing but I still find some of the tailoring - especially the stern blazers and hacking jackets - need a lighter touch. Colours can also be very predictable and the long, soft skirt now looks very "safe".

The manufacturers have responded not to the public, but to the alarming success of the German ranges like Escada and Laurel, which brought in the element of design lacking in similar British ranges. The success of Next has also beefed up other manufacturer/retailers. They have now realized that women will part with their money - even in a recession - when they can get what they want.

MAKE UP by MARY GREENWELL at SESSIONS using ESTEE LAUDER Greek Island Colours

HAIR by PETER at DANIEL GALVIN

PHOTOGRAPHS by VICTOR YUAN

Visit the New FINE DRESS FABRICS now just around the corner CRAWFORD STREET, W1. (Baker Street) 01-855 5876 THE SWISS FABRIC SPECIALISTS



Left
HER: Shal pink and white striped cotton top and scarf £28.95. Rope tie shirt £27.95. White culottes £18.95. All by Planet from Harrods, Knightsbridge, SW1. Grey sports watch by Porsche Design from Harrods. Ear studs by Adrien Mann. HIM: Pink shirt, also other colours, £28. Geometric cotton sweater £35 by Browns. Khaki fly-front trousers £32 by Katharine Hamnett. All from Browns menswear shop, 23 South Molton Street, W1. Belt £7.50 by Paul Smith.

Right
HER: Jumbo-sized blazer, white only, sizes 8-14.5. Striped cotton vest, £19.50. Striped shorts, black/grey only, £29. From all branches of Jaeger. White punched shoes, £18 in navy and red, from Drizzle, 54 Kings Road, SW3; Way-In, Harrods; Harvey Nichols and Rayne. HIM: Silk/wool jacket, grey/white only, £135. Striped seersucker trousers, £39. Check cotton shirt, £27.50. Navy belt £7.50. Socks £3.50. Espadrilles £17.50. All from Paul Smith, 44 Floral Street, WC2; 23 Avery Road, W1; 10 Byard Lane, Nottingham.





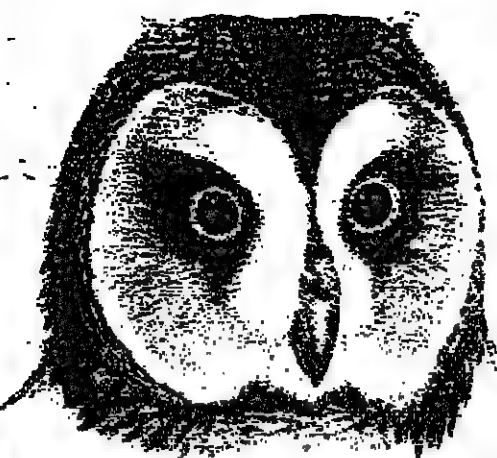
GRADATIONS OF HONOUR

predominantly unionised. Notable features of the new NUM are the rapidity with which its size has swollen and the strength it already claims among the more skilled black workers who are hard to replace in a show-down. "Job reservation" in a formal sense, whereby certain jobs are officially restricted on grounds of colour, has already been abolished, but the unjust statute preventing blacks from acquiring "blasting certificates" needed by key categories of mineworkers is one that the NUM will tightly be determined to repeal. The 'white miners' union, however, is an important and very reactionary constituency for Mr Botha. After its initial euphoria, the black NUM's work will prove hard and slow, but in the years hence it could play a big role in pressing the authorities towards peaceful reform. It deserves well.



GREY SEAL (*Halichoerus grypus*)
Shell oilmen are always delighted to see their sleek heads bobbing up near oil platforms and rigs.

DRAGONETS (*Callynionymus lyra*)
The males of this bottom dwelling species sport beautiful striped or spotted dorsal fins.



SHORT-EARED OWL (*Asio flammeus*)
Flies brilliantly and can hover before dropping like a stone. The 'ears' are feather tufts, the bird doesn't hear through them.



GUILLEMOT (*Uria aalge*) The single egg is pear-shaped to prevent it being blown off cliff top nesting sites.



The female Osprey is slightly larger than the male.

The footpads have tiny spines for gripping slippery fish.

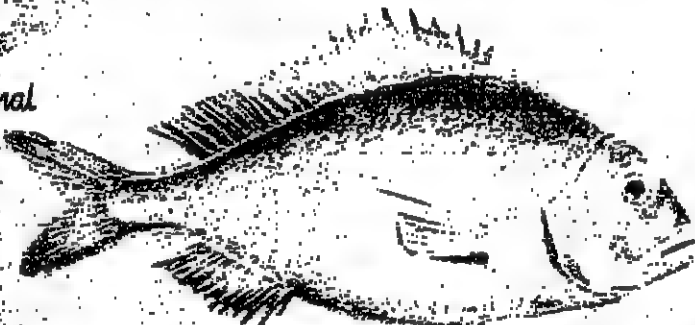


ATLANTIC FLYINGFISH (*Cypselurus heterurus*)
This infrequent visitor is sometimes seen wave-skimming in the North Sea in late summer.

OSPREY (*Pandion haliaetus*)
A thrilling sight is to see the rare Osprey, feet outstretched, snatch a fish from the sea.

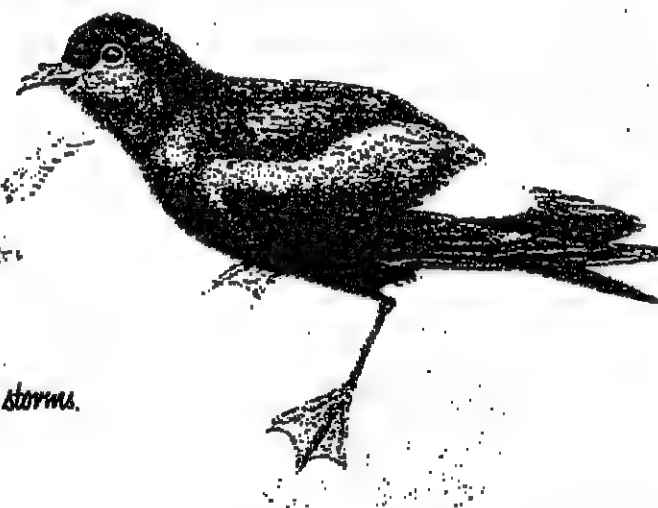
Jellyfish are curious in being hermaphrodite, each animal is both male and female.

JELLYFISH SHELTERS WHITING FRY
Young whiting lead a charmed life safe from most predators beneath the poisonous tentacles of the jellyfish, *Pelagia anella*.



RAY'S BREEM (*Brama brama*)
Large shoals of this silvery, deep-bodied fish sometimes strand themselves along shore lines.

STORM PETREL (*Hydrobates pelagicus*)
These far flying seafarers only ever go ashore to breed, or when driven there by storms.



BROWN SHRIMP (*Crangon vulgaris*)
These tiny creatures are an important link in the ocean food chain.

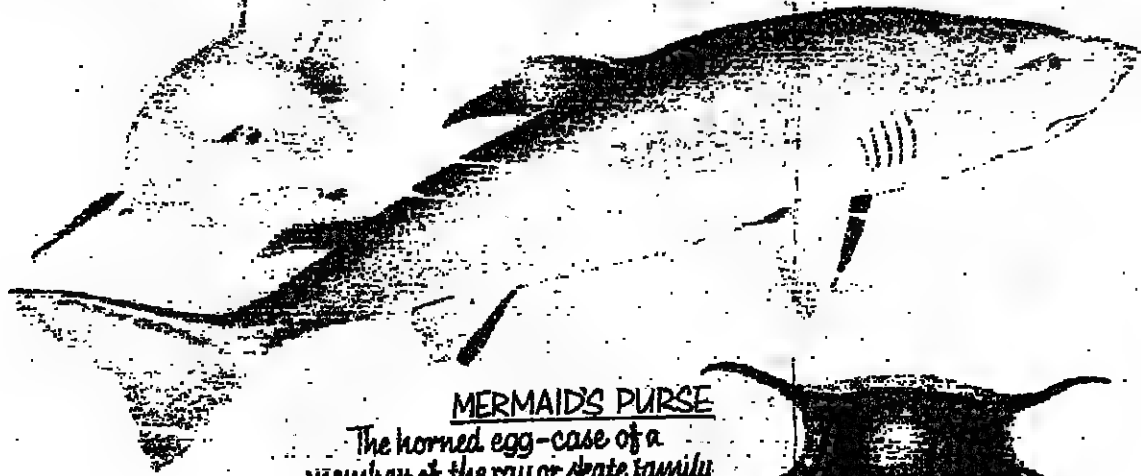
CONGER EEL (*Conger conger*)
Eats fish and crabs, growing to over 9ft. and more than 200 lbs.

GOLD CREST (*Regulus regulus*)
Britain's smallest bird often rests on our oil platforms during its 500 mile migration.



GREENLAND SHARK (*Somniosus microcephalus*)
The fresh flesh of this primitive shark is poisonous to humans.

PUFFIN (*Fratercula arctica*)
In summer breeding colours. The bill serves as weapon, digging tool and flag.



MERMAID'S PURSE
The horned egg-case of a member of the ray or skate family.

The Country Diary of a North Sea oilman.

The North Sea abounds in creatures that range from microscopic plankton to 20ft pilot whales swimming in herds several hundred strong.

It teems with fish: flounder, dab and plaice snuggling in the seabed sands; great shoals of bass; ballet-schools of coley leaping gracefully from the water.

The sea is raucous with the cries of dozens of kinds of sea bird, and in autumn vast flocks of land birds like thrushes and blackbirds cross it to escape the harsh northern winter.

Each year the ancient rivalry of birds and fish erupts anew in fierce guerilla warfare.

Cod and whiting fry hide from predators beneath poisonous jellyfish, unharmed among the deadly tentacles. But astute gulls know this trick of old and flip the jellyfish onto their backs to get at the tiny fishes.

In the midst of all this aliveness are the offshore rigs and platforms, operated by Shell, at work 24 hours a day recovering Britain's oil and natural gas.

The sheer variety of wildlife visible from their decks has made naturalists of many North Sea oilmen, who can sometimes provide valuable data about migrating birds.

On this page are some of the animals and birds most commonly seen from our platforms, as well as some of the rarest inhabitants of the North Sea and its coasts.

While you enjoy them, remember the magnificent North Sea oilman, working in mid-ocean to meet our country's future energy needs.

You can be sure of Shell



THE ARTS

Television
Limited
gaiety

Pinero's comedy *The Gay Lord Quex*, a scandalous, scandalized audiences when it was first performed in 1891 because of its insight into the marital and extra-marital behaviour of the upper classes. They no doubt knew about it all but thought it was quite the thing for the stage, particularly with the servants possibly looking down from the gods. It seemed a trifle eccentric (BBC) last night to revive it unless they have had a leak that it is to figure in an A-level paper next year or consider that the word "gay" down on its luck these days, might intrigue contemporary audiences.

This story of a manicurist's fight to prevent her best friend from falling into the marital bed of a much older, aristocrat roué, and her painful education into the ways of the male species, in general, dragged rather for the first hour. There was a certain fascination in watching Hannah Gordon, as a designing duchess, looking as if she was going to break into a song-and-dance routine at any moment, but it was not until the second half that it lived up.

Anton Rodgers, the route, having shaken himself too roughly during the interval perhaps, seemed determined to make a go of it and he did with vigour. Lily Gutteridge, as the manicurist, was splendid throughout, combining talent with the remarkable work-rate the part demanded of her. The costumes were good, too, and there seemed ample time to study them.

Granada's *World in Action* is, of course, never escapist but always urgent and frequently, as last night, discomfiting. *The Human Barons* dealt with the increasing availability of heroin in Britain and the realization of criminals that it is the thing to be in. A kilo of the stuff costs £2,000 in Pakistan and sells for £200,000 in Britain, which is apparently viewed by international criminal organizations and heroin traders as a growing market.

Professor Arnold Trebach, of the American University in Washington, a special adviser to the U.S. Government, warned that his country had "turned a problem into a disaster" with its response to the drug problem and thought that the British decision to limit the prescription of heroin would lead to disaster here, too, forcing addicts into the clutches of criminals.

Addicts told how their habit changed them and turned them into criminals also. The programme demonstrated how easy it was to acquire heroin by buying some in Harrogate. The girlfriend of a murdered addict who had been killed in front of her, she believed, a warning to others, by Fitzwalter's programme, the Ministry of Health of *World in Action*, rumoured the possibilities home.

Dennis Hackett

Cycladic Art/
Industry and Idleness/
Sporting Life

British Museum

The Costume Court
Victoria and AlbertHarold Cohen
Tate

In the art world, many occasions sound much more august than they actually are - especially if they take place in museums, where the general associations are with high art and rarified scholarship. Not, of course, that a lightweight show necessarily precludes heavyweight scholarship being brought to bear on it, any more than a show of high seriousness need be lacking in immediate appeal. Like the art which conceals art, there is a scholarship which conceals scholarship, wearing its learning lightly and requiring of us only that we enjoy and respond to the finished result. A number of shows like that have opened recently, and anyone who persists in being intimidated on entering the portals of the British Museum or the Victoria and Albert will be missing out on a lot of simple pleasure - simple even if the means of producing it are very complex.

The British Museum has at the moment three new exhibitions which would qualify. The most lofty is also in some ways the simplest to approach: *Cycladic Art* (until September 18) all comes from a private Greek collection, that of N. P. Goulandris, but has been arranged with the active encouragement of the Greek government and inevitably has about it a certain air of turning the other cheek after the recent visit of Melina Mercouri and the renewed fuss about the Elgin Marbles. But all thought of politics, artistic or otherwise, is swept aside by the extraordinarily direct impact of the works themselves. Some two thousand pieces, from the splendours of the Parthenon, and light-years away in aesthetic effect, the sculptures which are the most famous and familiar part of Cycladic art speak to us with an astonishingly modern voice across four millennia.

Or at least we think they do, which is certainly enough to be going on with. In fact, the Cycladic civilizations of these southern Aegean islands were just emerging from the New Stone Age and remain, strictly speaking, prehistoric. These small, severely simplified figures, most of them have been identified as gods and goddesses, as substitute human sacrifices, as company and even sexual partners for the dead, as nursemaids or ecstatic dancers.

We just do not know, and we cannot know without a lot more systematic investigation - perhaps not even then. But for the modern layman their original significance matters little. He will think at once of Modigliani, whose sculpture the elongated standing figures (usually, in this show, female) with their almost featureless, masklike heads most closely resemble. He will also at times find himself thinking of Henry Moore, whose plastic and words appropriately preface the exhibition. But it is not necessary to think of twentieth-century parallels. There is some mysterious power in these little marble figures - most clearly in the simplest, but residing even in such

Galleries

A modern voice across four millennia



The powerful body-language of a Cycladic figurine

exceptional pieces as the small seated figure holding a cup. The body-language (most of the figures have arms crossed, as though hugging their breasts to them) reinforces the unspoken drama, and one cannot leave the show without a haunting desire to know more.

For a bracing change of pace you could hardly do better than head from the new exhibition galleries at the front of the museum to the galleries of the Department of Prints and Drawings at the back. Here there are two separate shows, both of them almost defiantly English in their tone and subject-matter. The smaller, *Industry and Idleness*, Hogarth and the Moral Print, celebrates the museum's acquisition of the last four known preparatory drawings for Hogarth's series of prints *Industry and Idleness*, published in 1747.

These new drawings bring the total in the collection up to 23 sheets, showing all stages from the first thoughts to the completed series of 12 prints in which Hogarth tells the highly moral tale of the two apprentices who start out equal and end with one being hanged at Tyburn and the other as Lord Mayor of London. This is the first time all the material has been exhibited together, along with background material showing the rise and fall of the moral print in Britain, and it is insight into the working methods of Hogarth, as his compositions evolve from the total fluidity of the first

sketches to the intricacy and packed detail of the final prints, every rift loaded with ore.

Next door, and also on until September 18, is *Sporting Life*, one of those splendidly unexpected exhibitions in which we are permitted to glimpse the tip of one of the museum's incomparable range of icebergs. Here it is the collection of British sporting prints. Apparently the collection has never been systematically in the sense that sporting prints have been segregated by subject-matter from the great body of art. But through the years a vast number of works directly reflective of this specifically British tradition have been assembled; for one reason or another. To make the show more than three centuries have been scoured for images of the British at play, though given the traced seriousness with which he usually seems to play up and play the game, the term "sporting" is hardly frivolous.

Of course, "sporting print" immediately summons up images of horses racing or hunting, and there are quite a few such here. But sport is an enormous category, and there hardly seems to be a single section of it which has not, at some time, been depicted. In the *Balloonists* prints, after all, represent a sport, so do boxing and rowing prints, scenes on the cricket pitch, the golf course or the croquet lawn, archery contests, and the more or less excitable scenes in which people are shown making the most of a succession of

great frosts by skating or tobogganing. Nor to mention activities which tend to overlook nowadays, such as cock-fighting and bull-baiting, and a gallimaufry of odd minor sports like skittles, rounders, velocipede riding (the rage of 1819) and sand-yachting. Not to mention activities we prefer to overlook nowadays, such as cock-fighting and bull-baiting, and a gallimaufry of odd minor sports like skittles, rounders, velocipede riding (the rage of 1819) and sand-yachting in 1791.

Naturally there is a lot to learn about social history, but the big surprise of the show is the liveliness and variety of it all as a series of experiences at least on the borders of art. Also how recently printmakers have been interested in sport, some of the most vivid pieces carry the tradition through to the 1930s or 1940s.

Meanwhile, at the Victoria and Albert the major scene of new activity has been the reopened Costume Court, closed for five years while the roof was reconstructed. But it is not only the structure which has been overhauled. The whole approach to exhibiting costume has been revolutionized. No doubt the first thing anyone familiar with the old form of the exhibition will notice is the new, low, conservation-approved light-levels, which are now so low that sometimes one would be helped by a caption which told one the colour of the garments one is looking at. This means that clothes dependent on the brilliance of their colour or the sparkle of their trimmings will go for relatively little, but on the other hand I suppose we have to accept the conflicting need to preserve.

Otherwise the whole thing is a triumph. Not only are the clothes of some four centuries stunning in themselves, but clearly in a multitude of care and taste has gone into getting details like the period stance of the articulated models correct, and the new displays, banishing the old tableaux in favour of a clean, uncluttered look, certainly do their job well by focusing our attention entirely on the clothes. And, if you have always wanted to know exactly how a farthingale, a corset or a bustle was supported, here is your chance to find out.

Finally, the Tate is also getting into a summery spirit with a talking-point show devoted to the computer drawings of Harold Cohen. Cohen is a British artist who made a certain name for himself in the 1950s, then moved to California in 1968 and became deeply involved with computers. Now we can see to what end: the room at the Tate is occupied until July 24 by a large coloured mural based on computer drawings, plus two computer-operated machines which go on solemnly turning out a succession of related but differing drawings every hour of the day and night if required to do so.

The imagery is all carefully controlled according to limits laid down by Cohen himself, and the only advantage of doing it mechanically seems to be the unending proliferation of the computers: among many hundreds of drawings might be the one which perfectly embodies the inspiration of the original programmer. Interesting to watch, but difficult to see in terms of a breakthrough. Now off one of the machines took off on its own, producing masterpieces undreamed of that might be exciting. But it does not happen outside a story by Stephen King. Does it?

John Russell Taylor



Rheingold: the gods approach Valhalla

Opera

Wagnerian riches

Although credits must be shared a great many ways, San Francisco's new *Ring* - the first half of which has just been introduced - will be primarily the triumph of the company's incoming general director, Terence McEwen. He determined before he took up his present post that he would, as soon as possible, offer San Francisco a new summer festival *Ring* of the highest possible quality, faithful both to Wagner's mythological story and to his music.

After Georg Solti, his first choice conductor, was tempted to Bayreuth, he engaged Edo de Waart, music director of the San Francisco Symphony. Although de Waart leaves soon to assume control of the Netherlands Opera, he will return to conduct the new *Siegfried* in 1984 and the whole *Ring* in 1985. De Waart obtained performances of wonderful accuracy, over-restrained for *Das Rheingold* but full-out and voluptuous for *Die Walküre*. His ocean-rolling strings and blasts of brass created a marvellous Wagnerian other-world for the gods and humans on stage.

McEwen has put together a combination of heroic-voiced veterans and younger singers bursting with fresh power and promise. Wotan, aged, from Michael Devin in *Das Rheingold*, a clarion-voiced, potent young deity (if not yet a moving actor); to the baggard and resonant Thomas Stewart, several centuries older, in *Die Walküre*. Fricka, transformed from Hanna Schwarz - bustling, brazen and sharp - to Helga Bruchmann, who gave the most subtly dimmed and historically moving performance of all - and we finally got to hear the Californian-born Jeanine Altmeyer-Bühnwald on "home" ground. (She was one of four leads here who were also in the Cherub Bayreuth *Ring*). Her girlish, almost awkward style suited well the role of warrior maid and loving daughter. Face, form and voice were equally hand-some. Only in the long Act III farewell did one sense a diminution of vocal and dramatic resources, which led to a drag.

Walter Berry sang his first Alberich, more a vulgar slave-master than a cringing dwarf, and a fit opponent for Wotan. We had eight giants instead of two, which made sense - easier to carry away the gold, a more awesome threat to the gods. Half a dozen slim, slippery figures appeared and disappeared magically in the sea-rocks, mouthing the lines the three Rhinemaidens sang from the pit.

All these nonhuman creatures, plus an excellent Mime (David Gordon), eight reasonably attractive Valkyries in blue and silver, and a chorus of scurrying, grey, ratlike slaves were in strong, clear voice, and admirably directed by Nicholas Lehnhoff, prime interpreter of Terry McEwen's post-modern Wagnerian vision.

Loge may have been Lehnhoff's one mistake. William Lewis sang and acted the role with dash and panache. But for some reason he was dressed as a nineteenth-century dandy (spats, pearl-grey waistcoat, morning coat) among these timeless neoclassical beings. He settles into Wotan's throne to read the *Wall Street Journal* as the gods parade into Valhalla.

The designer, John Conklin, shares visual aspects of this triumph with Lehnhoff. Everything is lucid and clear, richly romantic-realist yet never lussy or sentimental. Emotional cues for landscape, lighting, ruins and sky were taken from the painter Caspar David Friedrich: steep pics and geological cirques, stratified rocks and petrified trees, were lighted into a surrealistic intensity, then slowly dimmed into moonlight of dawn. Four romantic/classical portals, growing out of rough rocks, flank the stage throughout. The gods' first home is a sort of Roman ruin. The new palace the giants build them is an authentic piece of imaginary architecture, a stripped-classical pile in three stages, inspired by the early nineteenth-century work of Karl Friedrich Schinkel, on a steep, pyramidal Shangri-La base.

David Littlejohn

Dance

Proud night for the British

Ballet Festival
Malmo Theatre

A traveller arriving in Malmo for the first time may find the simple, elegant facade of the city's theatre unexpectedly familiar. That frontage with its large windows, those vast foyers jammed within, have counterparts all over Germany and at Lincoln Centre, New York. So the building at first springs no surprises. Not at any rate, until you learn that it was built almost 40 years ago, thus being way ahead of the field for this modern style of theatre architecture.

There are two further surprises to come once you enter the auditorium. One is the size of the stage: 22 metres across the proscenium, that frontage with its large windows, those vast foyers jammed within, have counterparts all over Germany and at Lincoln Centre, New York. So the building at first springs no surprises. Not at any rate, until you learn that it was built almost 40 years ago, thus being way ahead of the field for this modern style of theatre architecture.

Ever since the theatre opened in 1944, ballet has shared its programmes with opera, operetta and plays, but this year is the first time they have ever brought together a group of different programmes on consecutive nights as a miniature ballet festival and showcase for the company.

Elsa Marianne von Rosen first proposed the idea, and set the target date for it, when she became director of the Malmo Ballet three years ago. The festival included the company's main production from each of those years: one ballet with specifically Swedish style and material, *Johannesnatten*, and two classics from different traditions. Bournonville's *Napoli* and Petipa's *Sleeping Beauty*.

This last is a particularly ambitious venture for a company with only 43 dancers. Contingents from the opera chorus and from the theatre's

ballet school bulk out the ensembles very ably, but *Beauty* has a lot of demanding solo roles. To make matters worse, the two dancers who were to have taken the leads both expired sick just before the festival. The temptation to look for guest stars as replacements, but instead the decision was made to gamble on the company's up-and-coming talent.

So it came about that the role of Aurora was shared among three young dancers, all of them Royal Ballet School graduates. Kathryn Low, who danced Act I, is in her fourth year at Malmo and has played Aurora before, but Eva Nissen (Act II) and Katherine Olsen (Act III), both new to the role, graduated only last year. So did two other RBS alumni who were prominently featured. Francesca Lombardi (Princess Florisse) and Michelle Hocking (Violente Fairy and Florestan *pas de trois*).

It was a proud night for the British - the more so since the excellent production is by Mary Skeaping, who has succeeded in inculcating a fine sense of ceremonialness in all the dancers and added many tiny details that enhance the drama. If I single out Katherine Olsen for her temperament and musicality, it is not that the others lacked those qualities, only that her dancing had the intangible excitement that suggests a potentially exceptional quality. Clearly, however, she will not lack friendly rivals to make the going.

Niels Simonsen, whose Florimund gave courteous support to both the new Auroras, really came into his own in the other ballets, as a comic devil in *Johannesnatten* and Gennaro in *Napoli*. Von Rosen's production of the latter looks even better on this big stage than in the earlier version which the Gothenburg Ballet brought to Sadler's Wells a few years back. It also contains an unfamiliar addition, a *pas de deux* for Gennaro and Teresina in the last scene; it is taken from Bournonville's dances for the

opera *La Muette de Portici* (but to unidentified music, not by Auber).

This is very early Bournonville choreography, created in 1830, and fits into *Napoli* more smoothly than the more usually interpolated duet from the later *Flower Festival at Genzano*. Simonsen's solo, especially, was brilliantly done, and Katherine Low, dancing her very spirited and promising first Teresina, was also outstanding in these dances.

The other ballet given, *Johannesnatten*, is based on an extraordinary mixture of sources: the naïf paintings at Dalarna, which represent biblical episodes in terms of eighteenth-century Sweden, a legend that on St John's Eve the devil could transform anyone he managed to throw into the wheel of a mysterious water-mill, and an identification of Salome's seven veils with the seven deadly sins.

Is sounds too complicated to work in dance terms, but when George Ge (then director of the Royal Swedish Ballet) conceived the work in 1948 he commissioned a libretto from the playwright Rune Lindström (who got so carried away that he wrote it in verse) and a score from Gunnar de Frumerie, a composer of some distinction. Both did a first-rate job, and, although Ge's original Stockholm production had no lasting success, this new staging by von Rosen has great charm.

The peasant style of the Dalarna paintings helps her and the designer, Dan Nenteanu, to mix humour and sentiment in a touching way. Herod wears military uniform, John the Baptist (Knut Breder) is dressed in a black clerical suit with white neck-tie, and the angels might have stepped straight from a Christmas tree. Swedish sins, incidentally, are apparently different from ours; they include drunkenness but not lechery. Very Scandinavian. The Devil, at Herodias's instigation, sets the seven sins to corrupt poor little Salome; each offers a gift - a flower, a bracelet, a belt and several



Marissa Nino de Guzman: versatile Salome

scarves. Removing them in the course of her dance makes the plot misfire, since she ends up restored to her old self, sweet and innocent. Unfortunately, she is too late to stop the executioner, but there is at least a half-happy ending all the same, with his soul going straight up to heaven (a cardboard dove hanging from a painted cloud) and she clinging to the foot of a cross in a shaft of bright light.

Marissa Nino de Guzman, a young dancer from Peru, plays Salome. She is equally convincing in suggesting absolute purity and the most depraved lasciviousness, and can switch from one to the other in an instant. Everyone I met in Malmo (including a strong contingent of visitors down from Stockholm and some across from Copenhagen) insisted on how Elsa Marianne von Rosen had transformed the company. She deflects a share of the credit to her ballet master, Donald Kirkpatrick. Enough praise is due for both to back in it. This is a company obviously full of spirit and working tremendously hard to achieve its potential, which on this showing is considerable.

John Percival

Aldbrough Festival

CBSO/Rattle
St Edmundsbury
Cathedral/Radio 3

Ever since Coventry Cathedral in 1962 every performance of Britten's *War Requiem* is an occasion, if only because of the huge forces that must be assembled. On Sunday night, as part of the Aldeburgh Festival, its celebration and its warnings were brought to the cathedral of St Edmund by the City of Birmingham Symphony Orchestra and Chorus, the chorists of Norwich Cathedral and soloists under Simon Rattle.

It was not the place and time alone that gave this performance its special resonance. Neither was it merely the acoustics that accounted for what was in every way a weightier, broader, still more detailed conception of the work by that presented; by Mr Rattle, not so long ago at the Festival Hall. Now there was space and time enough for each section to build and sustain its own force, and yet for the "Libera Me" to seem a mighty consummation, est, with the timelessness of the boys' chorus and the immediacy of the soloists powerfully fused.

Hilary Finch

Arditti Quartet
Guildhall

There were jugglers, mimes and Punch and Judy outside the Abbey, and even a band with attendant tap-dancers at the station to welcome the King. George V steam locomotive: a festival atmosphere certainly pervaded Bath at the weekend. And, if the Arditti Quartet's tough spirit in the Guildhall was not exactly racy festival fare, that only testified to the uncompromising pursuit of artistic excellence which has marked Sir William Glock's outstanding period as festival director.

The Arditti's recitals have a quality of excitement which other quartets rarely capture. The challenge of an entirely postwar repertory - Elliott

Within the grand design, the boys' voices were sharp, direct and objective. The CBSO Chorus were sensitive to the state of each line, spitting out the human corpse of the Dies Irae against consistently fine brass playing, or busy with the fierce detail of "Quam Olim Abraham".

The pillars and vaulting worked wonders for the scattering of word and note in the Sanctus in telling preparation for John Shirley-Quirk's "After the Blast of Lightning". The entire work is, of course, deep inside his system, and it shows, each word weighted and placed with perfect consideration for its particular sound.

His steady, even half-tone at the work's turning point, where the enemy/friend offers the waters of forgiveness, was matched expressively, if not quite in minute vocal control, by Anthony Rolfe Johnson's considered and individually appropriated interpretation of Owen's words. He brought his solos a human substance and detail which Jo Ann Pickens, winner of the 1981 Gold Award at Snape, was never quite able to find.

Hilary Finch

Bath Festival

Carter's First Quartet of 1947, with which they ended, is the earliest work they play - and a constant battle with complex new works ensure that there is little relaxation in their music-making. On this occasion that was answered up to breaking point by the Britten premiere of a quartet by Xenakis, *Titus*, written specially for them and first performed in Lisbon three days earlier.

Plunging into the heavy, moaning glissandi familiar from his orchestral works Xenakis here constructs, in a piercingly direct and quite accessible manner, blocks of noise which are assembled, knocked down and reassembled with great dramatic skill. In the first six minutes we hear high whining harmonics over rattling attacks under the bridge or on the talpices of the instruments: musing, scratched

RPO/Weller
Festival Hall

A summer Sunday afternoon is hardly the time to look for fresh insights into the "Emperor's Concerto", but Andras Schiff's ideas of his own about it in his performance with the Royal Philharmonic Orchestra. These included a stronger contrast than usual between the piano's rhetorical flourishes at the outset and the lyrical content of the opening movement, and it would clearly take more than the removal of a crying baby from directly behind the orchestra in the middle of the slow movement to upset him, or Walter Weller's conducting.

Mr Weller, and his soloist settled for an agreeable conversational approach in general with nothing forced or overstated but with a clear fingered technique from the soloist and a flexible balance of instrumental texture. Maybe the Adagio was begun at a slower speed than most, although it picked up in mid-movement, but it was the finale that occasionally raised an eyebrow. Mr Schiff gave it a somewhat bumpy ride, with heavy-handed stress on accented beats and dynamics of

London concert

his own, yet there was undeniable exhilaration in the result. The programme began with Schubert's so-called *Rosamunde Overture*, where the elegant and cheerfully relaxed performance had a summer-season charm, and no time to do with the theatre, but a great deal to do with the spirit of Schubert's related *Overture "In the Italian Style"*. The orchestra's response was also to be admired in Tchaikovsky's Fourth Symphony after the interval. Here the conductor was less concerned with the dramatic associations Tchaikovsky ascribed to it than with the richness of tone-painting on different levels of expression.

Not only were there echoes of Tchaikovsky's feelings from *Eugene Onegin* but anticipations of the character dances and others in *The Sleeping Beauty*. I should have liked more graceful phrasing from the woodwind in the sonlike second movement, a wider dynamic range from the strings in their "pizzicato ostinato" and a stronger feeling for the folk-song character of the tunes in the finale. The brass had a rich tonal splendour but a less than precise ensemble.

Noel Goodwin

150 من الاموال

Investment and Finance

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THE TIMES

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STOCK EXCHANGES

FT Index 721.3 up 4.2
 FT 100 83.80 up 0.89
 Bargains 23.644
 Tring Hall Index 174.6
 up 1.1
 Tokyo: Nikkei Dow Jones
 index 8,598.65 up 36.21
 Hongkong: Hang Seng index
 886.52 (closed)
 New York: Dow Jones Industrial
 Average 1,204.83 up 8.72

CURRENCIES

LONDON CLOSE
 Sterling \$1.5525, down 1.75
 Index 85.4 down 1.5
 DM 3.8625
 FF 11.9125, down 0.1750
 Yen 376.50, down 4
 Dollar
 Index 125.3, down 0.1
 DM 2.5455
 Gold
 \$412, up 50 cents
 NEW YORK LATEST
 Gold \$413
 Sterling \$1.5520

INTEREST RATES

Domestic rates:
 Base rates 10
 3 month interbank 9 1/2-9 3/4
Euro-currency rates:
 3 month dollar 9 1/2-9 3/4
 3 month DM 5 1/2-5 3/4
 3 month 14 1/2-14 3/4
ECGD Fixed Rate Sterling
 Export Finance Scheme IV
 Average reference rate for
 interest period May 4 to June
 7, 1983 inclusive: 10.334 per
 cent.

PRICE CHANGES

Sir J. Causton 60p + 3p
 Clouston 24p + 3p
 Sotheby 58p + 6p
 J. Brown 29p + 3p
 Kwik-Fit 46p + 4p
 Borthwick 23p + 2p
 Elson & Robinson 11p + 4p
 Comb Tech 37.5p + 3.5p
 Solicitors Law 30p + 2p
 Pottery Peak 215p + 15p
 Grindlays Hodge 187p + 12p
 Hill Bristol 80p + 5p

TODAY

INTERIM: Cadogan, Communications, Arthur Guinness and Sons, Hanson Trust, Ernest Jones (Jewellers), Kenning Motor Corp, Plaxtons (GB), Premier Consolidated Oil Fields, Triniton Television, FINALS: Alliance, Hurdle Holdings, Associated Heat Services, Beechwood Group, British and American Film Holdings, Butterfield-Harvey, Capital Gearing Trust, Chapman Industries, Chubbury Estates, Courtyards and West Town Properties, Dawson International, Hazlewood Foods, Gavor Tin Mines, GB Papers, Law Land, Thomas Locker Holdings, International Signal Corp, Leigh Interests, Physic, Standard Fireworks, United Electronic Holdings, John Waddington, Whitebottom Energy Trust.

Bid to wind up six Hunt firms

Petitions for the compulsory winding up of six companies formerly controlled by Mr Keith Hunt, the missing financier, will be heard in the High Court in London today.

Mr Philip Heslop, counsel for the Trade Secretary, who has brought the petitions, told Mr Justice Harman yesterday that they were the first batch of petitions against companies controlled by Mr Hunt, an investment and commodities adviser.

Moves by representatives of investors to bring petitions against four other Hunt companies - Futures International, Exchange Securities International, Exchange Securities Financial Services and Exchange Securities Investment Management - were adjourned until some time after June 27, in order for evidence to be presented.

LIFE RECORD: The London International Financial Futures Exchange (LIFFE) had another record day's trading yesterday. The number of contracts traded hit 4,427 compared with the previous record of 3,772. There were 2,679 gills contracts traded and Eurodollar contracts were also very active, responding to the better-than-expected US money supply figures.

BANK BUY: The Royal Bank of Scotland will buy Seattle-First National Bank (Switzerland) Zurich from Seattle-First National Bank, providing the deal is approved by regulatory authorities. The Zurich bank will be renamed Williams & Glyn's Bank AG and will be developed locally and internationally.

CHINA CONTRACT: China has selected Sinomacchine of Stockholm to modernize the grain intake and storage facilities at the ports of Dalian and Tianjin. Two contracts worth about \$1.6m cover design and supply of four Skatopac twin-belt conveyors, quayside belt and chain conveyors, weighing and other associated equipment.

WALL STREET
Dow dips after early gain

New York (AP Dow Jones) - After early gains, stocks fell in active trading. The Dow Jones Industrial Average was up 10 points, but dropped to 1,204.83 by the close.

The transportation average was down 12 points to 1,746.6. Advancing issues were up 10 to five over declines.

Mr Marvin Kline, vice president at Sanford C. Bernstein & Co., said that last Friday's money supply figures "were much better than everyone expected. The end of the month is coming up in a couple of weeks and the portfolio managers think they should have the market in a very healthy and it looks like the market is going to be very healthy."

He said that "everyone wants to buy again."

Mr Robert Farrell, market analyst at Merrill Lynch, said that any reaction ahead would probably not exceed 18 points to 32 per cent, because "many of the big capitalization stocks that affect the Dow are already down 10 per cent or more."

"The risk in a correction may be greater in those speculative areas that are the most extended and amount to more than the moderate weakness indicated for the major averages."

American Telephone & Telegraph was up 1/4 at 64 1/2. General Electric was up 1/4 at 54 1/2. International Business Machines was up 1/4 at 114 1/2. G.D. Searle was down 1/4 at 42 1/2. Cochran Industries was up 1/4 at 62. Federal National Mortgage Association was up 1/4 at 54 1/2. NCR was down 1/4 at 121 1/2. Southern Pacific was down 1/4 at 72. Commodore International was down 1/4 at 53 1/2.

Spending boom grows stronger

By Frances Williams, Economics Correspondent

The consumer spending boom which began last summer has gone from strength to strength, with business in the shops last month running at record levels.

The volume of retail sales in May was up 0.5 per cent on the month before and more than 6 per cent higher than a year earlier, according to provisional estimates by the Department of Trade released yesterday.

Retailers are hopeful that the trend, with nothing for most of the year, will continue.

A number of factors have fuelled the shopping spree. Lower mortgage rates, which put more cash in people's pockets, higher tax credits, and pay rises have - over the past few months - encouraged people to borrow more, and, according to the Retail Consortium which represents the bulk of Britain's main stores, a booming black economy, and increased spending by tourists, especially from the United States.

The worry remains to what extent higher consumer spending will suck in imports rather than benefit industry at home. Over the three months to May, retail sales rose by 1.5 per cent, but imports of consumer goods went 7 per cent higher in the latest three-month period.

RETAIL SALES

	Sales by volume (1978=100)	Index by value (1978=100)
1981 Q1	108.4	+9
Q2	105.0	+8
Q3	105.4	+8
Q4	105.3	+8
1982 Q1	106.5	+9
Q2	106.5	+9
Q3	108.9	+10
Q4	110.7	+10
1983 Q1	111.1	+8
Q2	108.1	+8
Mar	108.6	+8
Apr	108.3	+8
May	109.8	+8
1983 Mar	111.1	+8
Apr	111.9	+9
May	112.8	+9
May	119.9	+9

Source: Department of Trade

BIS gives hope and sounds a warning

By Peter Wilson-Smith, Banking Correspondent

The Bank for International Settlements has strongly attacked United States fiscal policy, blaming the big US deficit for holding up interest rates and threatening the world recovery.

But in a much more optimistic assessment of the world economy than a year ago, the central bankers' bank says in its annual report that prospects are at least beginning to brighten.

"There is greater hope than at any time since the first oil shock that the present recovery can be maintained into lasting, non-inflationary expansion."

However, it says that high real interest rates in the US could choke off the recovery which has begun there and in West Germany and Britain.

"From a very comfortable angle, the most significant risk to the recovery is the US policy of high interest rates," the BIS says.

"If the United States fails to relax monetary policy, which

Mining finance group heads queue for funds

By Jeremy Warner

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A year ago, British Petroleum raised £62.2m and in May 1979, Imperial Chemical Industries raised just over £20m.

A long queue of companies hoping to raise money on the Stock Exchange as soon as the outcome of the election was known has been forming since the beginning of the year.

The terms of the issue are one new share at 450p for every six held.

RIZ shares, which had fallen sharply on Friday on speculation that the company was about to bid for oil group, Tricentrol yesterday, rose 7p to 539p. It is unusual for a price rise in response to such a heavy funding exercise and it did so partly because the group accompanied the rights issue with

higher metal prices, leading to a far in 1983 than in 1982.

Market commentators had regarded a rights issue from RIZ as a strong possibility ever since CRA, the group's parent, had announced a similar issue in April.

At the time, RIZ took up some of the cash, thereby preserving its stake in CRA at more than 50 per cent, despite an undertaking given to the Australian Government to reduce the holding to 49 per cent or less.

A denial that it has any intention of bidding for Tricentrol.

Mr Allan Frame, chief executive, said the group was raising new money to enable it to take advantage of growth opportunities in its existing natural resources and industrial activities and to provide greater flexibility for acquisitions.

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COMPANY NEWS
IN BRIEF

Careless Capital and Leonard
Year to 31.3.83.
Pre-tax profit, £2.74m (£1.79m).
Stated earnings, 4.5p (3.7p).
Turnover, £81.83m (£74.84m).
Net dividend, 2.75p (2.75p).

Sheffield Brick Group
Year to 31.12.82.
Pre-tax profit, £518,000 (£163,000).
Turnover, £5.28m (£4.81m).
Net dividend, nil (0.75p).

Western Motor Holdings
Year to 31.12.82.
Pre-tax profit, £398,000 (£487,000).
Stated earnings, (loss) 18.86p (loss 21.87p).
Turnover, £35.66m (£35.29m).
Net dividend, nil (nil).

Scottish National Trust
Half-year to 31.3.83.
Pre-tax revenue, £1.76m (£1.71m).
Stated earnings, 1.79p (1.73p).
Net dividend, 1.2p (1.15p).

Camford Engineering
Half-year to 31.3.83.
Pre-tax profit, £201,000 (£639,000).
Turnover, £19.85m (£19.47m).
Net dividend, nil (nil).

London Private Health Group
Year to 31.3.83.
Pre-tax profit, £3,300 (£41,500).
Stated earnings, (fully diluted) 0.2p (1.5p).
Turnover, £1.18m (£864,000m).

Seritons
(company's shares are traded on the over-the-counter market)
Year to 31.12.82.
Pre-tax profit, £1.05m (£929,000).
Stated earnings, 6.0p (5.9p).
Turnover, £14.62m (£12.18m).
Net dividend, 4.5p (4.5p).

Property Holding & Investment Trust
Year to 31.3.83.
Pre-tax revenue, £5.05m (£3.42m).
Net dividend, 4.0p (3.5p).

Stewart Naim has reached agreement with Gulf Petroleum Products Co. (GPPC) subject to shareholders' approval, to acquire 40 per cent of the beneficial interest in the freehold of property at 9-15 Saville Street, London, W1, for £4.4m, to be satisfied by the issue of 3m new ordinary shares.

John Mowlem's directors told yesterday's annual meeting that because there had not been disclosed within the annual report and accounts a contract that they had considered immaterial the meeting would have to be adjourned.

The contract involved a sum of £500,000, but despite its insignificance, technical provisions in the companies act required it to be disclosed.

An amendment to the report and accounts and an explanatory letter will be sent to shareholders and a formal consideration of the report and accounts will take place at the adjourned meeting on July 11.

INVESTORS' NOTEBOOK • edited by Sandy McLachlan

BA helps Saatchi to high flying success

Saatchi & Saatchi
Half-year to 31.3.83.
Pre-tax profit £24.53m (£2.4m).
Stated earnings 10.42p (8.62p adj).
Turnover £288m (£78m).
Net interim dividend 2.82p (2.33p adj).
Share price 520p, up 10p.

In the middle of the worst recession since the war, the advertising agencies ought to be feeling the squeeze more than most - just as they did in the early 1970s.

Instead, their results are going from strength to strength. And the growth is right across the board and not a case of the big well-known quoted agencies poaching accounts from the smaller less well-known ones.

Industry seems to have learned the lesson of the early 1970s: it found that cutting advertising budgets meant losing market shares. The attitude to advertising is the same whether the company is a manufacturer or a seller of packaged goods.

The result is reflected both by the revenue of the independent television companies - just look at Central's first set of figures - and the fact that the advertising industry's revenues have been growing faster than the rate of inflation.

Within this picture, Saatchi & Saatchi has carved a special niche if only because of its high profits as the Conservative Party's agency. It not only says what revenue this account brings in, if indeed a bill is submitted at all.

The huge growth in interim profits reported yesterday reflects the acquisition of Compton Communications a year ago.

Since then Saatchi has pushed margins from 1.8 per cent to 1.6 per cent, a considerable achievement.

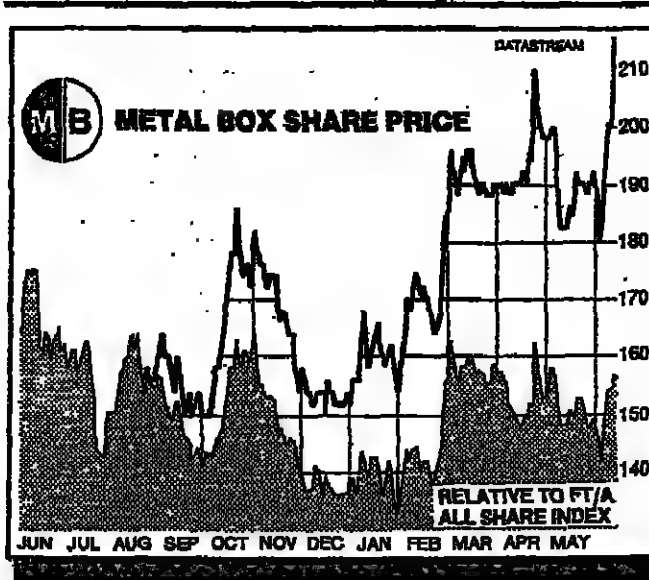
There has also been considerable organic growth. Accounts such as British Airways said to be worth £25m a year, will make a substantial contribution over the next - who knows? - 10 years. The previous agency held the account for 36 years. But don't forget that success in the big league has its price - gaining BA lost Saatchi British Caledonian and KLM.

Saatchi is now the eighth biggest advertising agency in the world. There are still some geographic gaps, especially on the United States West Coast so expect one of two small acquisitions. Second-half profits will not be as spectacular as the first, but more than £10m for the whole year is easily achievable.

Finlay

James Finlay
Year to 31/12/1982
Pre-tax profits £14.34 (£10.95)
Stated earnings 12.8p (14.1p)
Turnover £122.9 (£99.159)
Net dividend 2.9p (2.5p)
Share price 120-1/2p
Dividend payable 7/7/83

James Finlay, a stalwart from the days of great British companies with vast overseas empires, has proved more



successful than many in handling the transformation when it lost its empire and had to search for a new role.

Today the group is spread across five major areas: banking and international, confectionery and beverage manufacturing, trading, manufacturing and merchandising, energy-related interests and the plantations.

And today the bulk of its profits, £8.5m out of a total pre-tax of £15m, come from the United Kingdom. Of the rest, £3.6m from Africa and £2.9m from Asia are the most significant.

The new and more stable worlds of North America and Australia are far smaller.

Ironically, it is the plantation business which has proved the major force behind what is at first sight a commendable surge in profits. It has provided £5.2m against just £2.0m, in 1981 accounts for all of the rise from £13.1m to £15.0m at the group pre-tax level.

But a combination of extraordinary items and increased tax absorbs most of this improvement.

It is easy to see where and why the group had problems. Banking had a troubled year and turned in a £362,000 loss,

Metal Box

Metal Box said its improved profit and borrowing position is only a first step towards recovery and improved profitability and there is no certain evidence of a major improvement in the company's markets.

The group was commenting on its results for the year to March 31 in which it made pre-tax profits of £52.5m up from £40.2m in sales of £1.39bn compared with £1.2bn.

Metal box shares rose to 222p on the announcement of results before settling back to 218p, a net gain of 16p from Friday's close.

Metal box said extraordinary items, reflecting the cost of redundancies, and reorganisations, again substantially eroded attributable profits for the year.

US finance

With US Government, corporate and union pension funds now controlling almost \$1,000bn in retirement assets, the force of their collective attitude towards investments is formidable, and it can often provide the mainstay of support for a bull market once it gets rolling.

As recently as last June, according to one survey, pension funds were favouring stocks over bonds by a 50-40 margin. But as the bull market developed last year, pension fund managers began putting even more of their assets into stocks.

The consensus among pension fund clients is that this is a bull market. They are adding that if there is a correction, stay with equities. Like most other pension plan sponsors these days, CBS remains convinced that stocks offer the most promise for the largest portfolio gains. Last September, its annual contribution of more than \$20m went almost entirely into equities.

"Our clients have been fairly aggressive in increasing exposure to stocks over the last five or six months," said Mr Stephen Carter, president of the Chase Investors Management.

This trend is good news, of course, for investors who have been specially jittery in recent weeks over the possibility of a jump in interest rates that might depress the market.

Exco and Telerate show big increase in profits

By Our Financial Staff

Profits of Exco International have climbed significantly in the first four months of this year, Mr Hilton Clarke, chairman, told shareholders at the annual meeting yesterday.

He said that Telerate, the information system in which Exco owns 49 per cent, showed a 68 per cent rise in after-tax profits for the six months to the end of March. This rise is likely to be repeated in the second half of the year if new installations continue to grow at the same rate as the first six months of the year.

Dealing with other activities, Mr Clarke said that the group's

money-broking activities showed a small increase over the previous year's figures, with most of the positive results coming from the new Tokyo joint venture. He said that profits from bullion markets have been running well ahead of last year.

A new bullion was opened in New York last month. "We are very pleased with the results," he said.

It is understood that three of Garmore's founder directors are opposed to the terms and that an Exco shareholder's letter convening a meeting to approve the deal has been delayed.

Huge loan for EEC projects

Luxembourg (AP-Dow Jones)

European Community finance ministers yesterday allowed the European Commission to borrow the equivalent of 1,500m European Currency Units (ECUs) on international capital markets for project financing in member states.

Herr Hans Tietmeyer, the West German secretary of state for finance, who chaired the finance ministers' meeting, said the money would be borrowed to fund the third edition of the so-called New Community Instrument (NIC).

Last February, ministers decided in principle to extend borrowing under the NIC for a total of 3,000m ECUs.

Aurora to raise £19m

By Jonathan Clare

The long-awaited capital reconstruction at Aurora, the special steels and engineering group, will raise £19m and have interest charges over a full year.

The scheme was delayed when it emerged that the Department of Industry was only going to subscribe the minimum £250,000 required rather than the hoped-for £2m.

Barclays Bank, the group's main banker, has agreed to cancel or postpone various financial obligations worth about £2m.

Sir Robert Atkinson, who was previously believed to be ready to take more day-to-day control of the company, will retire as chairman at the end of

this year when his contract expires.

Aurora is still looking for a new managing director. Mr Arthur Watt, the former managing director, resigned last month and another director, Mr Jim Hannaford, is due to leave the company. But Aurora has found the two new non-executive directors it wanted to appoint from industry. They are Sir John Hill and Mr J Armstrong.

The reorganization proposals, which will have to be accepted by shareholders at an extraordinary meeting after next month's annual meeting, include the reduction of preference shares and ordinary shares into a single class of capital.

This will create a new class of 2.8 million ordinary shares and will eliminate a deficit of £24m on revenue reserves. Dividends could not be paid in the foreseeable future without the reduction.

About £9m will be raised by issuing new 9 per cent redeemable preference shares which will carry 97 per cent of the voting rights of the company.

The company's merchant bank, NM Rothschild, will underwrite 78 per cent of this issue and find subscribers for the rest.

Underwritten shares will be offered to existing shareholders first.

COMMODITIES

MEAT AND LIVESTOCK COMMISSION
Auction prices of meat and livestock
Auction prices of meat and livestock
Auction prices of meat and livestock

Commodity	Unit	Price
Beef	lb	1.10
Lamb	lb	1.20
Pork	lb	1.30
Chicken	lb	1.40
Duck	lb	1.50
Goose	lb	1.60
Turkey	lb	1.70
Game	lb	1.80
Wildfowl	lb	1.90
Game birds	lb	2.00
Game mammals	lb	2.10
Game reptiles	lb	2.20
Game amphibians	lb	2.30
Game fish	lb	2.40
Game invertebrates	lb	2.50
Game plants	lb	2.60
Game fungi	lb	2.70
Game lichens	lb	2.80
Game mosses	lb	2.90
Game algae	lb	3.00
Game bacteria	lb	3.10
Game viruses	lb	3.20
Game protozoa	lb	3.30
Game helminths	lb	3.40
Game arthropods	lb	3.50
Game molluscs	lb	3.60
Game cnidarians	lb	3.70
Game chordates	lb	3.80
Game echinoderms	lb	3.90
Game cephalopods	lb	4.00
Game gastropods	lb	4.10
Game bivalves	lb	4.20
Game nautilus	lb	4.30
Game nautilus	lb	4.40
Game nautilus	lb	4.50
Game nautilus	lb	4.60
Game nautilus	lb	4.70
Game nautilus	lb	4.80
Game nautilus	lb	4.90
Game nautilus	lb	5.00

Commodity	Unit	Price
Wool	lb	1.10
Alfalfa	lb	1.20
Barley	lb	1.30
Berseem	lb	1.40
Buckwheat	lb	1.50
Corn	lb	1.60
Cotton	lb	1.70
Flax	lb	1.80
Grain	lb	1.90
Hay	lb	2.00
Legume	lb	2.10
Lentils	lb	2.20
Millet	lb	2.30
Oats	lb	2.40
Peanut	lb	2.50
Pigeon	lb	2.60
Potato	lb	2.70
Rice	lb	2.80
Sorghum	lb	2.90
Soybean	lb	3.00
Sunflower	lb	3.10
Sweetcorn	lb	3.20
Tritic	lb	3.30
Wheat	lb	3.40
Yam	lb	3.50
Yucca	lb	3.60
Zoysia	lb	3.70
Zucchini	lb	3.80
Zucchini	lb	3.90
Zucchini	lb	4.00

Commodity	Unit	Price
Gold	oz	1.10
Silver	oz	1.20
Platinum	oz	1.30
Palladium	oz	1.40
Rhodium	oz	1.50
Ruthenium	oz	1.60
Rhenium	oz	1.70
Selenium	oz	1.80
Tellurium	oz	1.90
Vanadium	oz	2.00
Yttrium	oz	2.10
Zinc	oz	2.20
Zirconium	oz	2.30
Zirconium	oz	2.40
Zirconium	oz	2.50
Zirconium	oz	2.60
Zirconium	oz	2.70
Zirconium	oz	2.80
Zirconium	oz	2.90
Zirconium	oz	3.00

Commodity	Unit	Price
Crude oil	barrel	1.10
Gasoline	barrel	1.20
Heating oil	barrel	1.30
Jet fuel	barrel	1.40
Kerosene	barrel	1.50
Lubricant	barrel	1.60
Motor oil	barrel	1.70
Transformer oil	barrel	1.80
Wax	barrel	1.90
Wax	barrel	2.00
Wax	barrel	2.10
Wax	barrel	2.20
Wax	barrel	2.30
Wax	barrel	2.40
Wax	barrel	2.50
Wax	barrel	2.60
Wax	barrel	2.70
Wax	barrel	2.80
Wax	barrel	2.90
Wax	barrel	3.00

Commodity	Unit	Price
Coal	ton	1.10
Wood	ton	1.20
Brick	ton	1.30
Cement	ton	1.40
Steel	ton	1.50
Aluminum	ton	1.60
Copper	ton	1.70
Iron	ton	1.80
Nickel	ton	1.90
Pt	ton	2.00
Sn	ton	2.10
Ti	ton	2.20
Zn	ton	2.30
Zn	ton	2.40
Zn	ton	2.50
Zn	ton	2.60
Zn	ton	2.70
Zn	ton	2.80
Zn	ton	2.90
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Lubricant	barrel	1.60
Motor oil	barrel	1.70
Transformer oil	barrel	1.80
Wax	barrel	1.90
Wax	barrel	2.00
Wax	barrel	2.10
Wax	barrel	2.20
Wax	barrel	2.30
Wax	barrel	2.40
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Wax	barrel	1.90
Wax	barrel	2.00
Wax	barrel	2.10
Wax	barrel	2.20
Wax	barrel	2.30
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Motor oil	barrel	1.70
Transformer oil	barrel	1.80
Wax	barrel	1.90
Wax	barrel	2.00
Wax	barrel	2.10
Wax	barrel	2.20
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Motor oil	barrel	1.70
Transformer oil	barrel	1.80
Wax	barrel	1.90
Wax	barrel	2.00
Wax	barrel	2.10
Wax	barrel	2.20
Wax	barrel	2.30
Wax	barrel	2.40
Wax	barrel	2.50
Wax	barrel	2.60
Wax	barrel	2.70
Wax	barrel	2.80
Wax	barrel	2.90
Wax	barrel	3.00

APPOINTMENTS

New head at Morgan Crucible

Dr Bruce Farmer takes over as group managing director of the Morgan Crucible Company on July 1 from Mr John Gilbert who is retiring. Mr David Dunbar becomes chairman of the Thermal division. Mr Graham Swettenham, from the BOC Group, takes over the finance function.

Mr Brian Denney has been elected deputy chairman of the British Insurance Brokers' Association.

Mr G. J. McKeen has joined the board of Matheson & Company.

Mr Oliver Whitehead has been appointed managing director of John Laing International, but will continue as a joint managing director of John Laing Construction.

Mr Norman S. Bergel has joined the board of County Bank as a director in the international division. He was previously a director of Orion Royal Bank.

Mr Andrew Caldecott has joined the board of Electronic Rentals Group as a non-executive director.

Mr David Wildsmith has been appointed a director of Charterhouse Japhet Investment Management. He was formerly investment manager of the British Airways Pension Fund.

Mr Malcolm Hughes has been appointed general manager (marketing and development) and Mr Tim Medville has been appointed general manager (housing) of Nationwide Building Society.

Mr Alastair McCorquodale, chairman of McCorquodale, has become a director of Guardian Royal Exchange Assurance.

Mr A. Sherazee has been appointed chairman and chief executive of Blackfins Insurance, a subsidiary of Unilever.

Mr Archie T. Gibson, divisional general manager (marketing and development) is to be joint general manager (branch administration - east area) in succession to Mr Ivan R. S. Robson who is retiring. Mr David M. Dunlop, a district manager, branch administration east area, is to be assistant general manager with responsibility for the marketing, development, public affairs and VISA functions. Mr John C. Robertson, manager, central banking services, has been appointed assistant general manager.

Torin Douglas: Marketing and Advertising

Why British management is being told to put emphasis on design



Channel 4 may not have attracted as many viewers and as much advertising revenue as it would have liked, but it is already picking up awards, the latest batch of which recognizes the young television channel's achievements in the field of graphic design.

Last week, it won a coveted gold and two silver awards at the Design & Art Directors' Association's 21st annual dinner, for its corporate identity on screen, while one of its programmes, *The Showman*, won a silver award. Another, the autumn - scheduled series, *Spice of Life*, won the gold award for television graphics.

Television is giving design companies such as Robinson Lambie-Nairn (the Channel 4 corporate identity) and Lodge Cheesman (*Spice of Life*) unrivalled opportunities to show their flair and imagination. Of the four design areas that D & AD is concerned with - advertising, graphic, television and editorial design - television is currently the strongest, with both the BBC and the ITV companies outstanding in their use of title sequences for programmes such as *Smiley's People*, *Omnibus*, or *The South Bank Show*.

Yet if television graphic design is currently in the ascendancy, there is no doubt that all four of D & AD's areas of concern have shown British design at its best over the past 20 years, building this country reputation that it simply does not have when it comes to the design of products.

It has become a commonplace in recent years that British advertising is "the best in the world" which may well be one reason many observers are now detecting a fall-off in the standard.

Similarly, in editorial design, publications such as *The Sunday Times* and *Nova* have, in their day, carved out international reputations as have publishers such as Penguin and a number of packaging companies.

"Britain leads the world in the crafts of visual communication," Mr Edward Booth-Gibson, the chairman of D & AD, says. "It is one of the areas which have grown considerably over the last 21 years and it is now an industry giving work to many and creating considerable

invisible earnings for the British economy. This is something to be proud of, as D & AD is actively seeking out ways to foster and encourage British design to greater endeavours."

Yet if Britain has produced such outstanding designs in the fields of advertising, packaging, books, newspapers and magazines, why has it not done so in the area in which, in economic terms at least, it really counts - the design of products? The answer has to be laid at the door of the management. Except in the areas where visual communication is part of the product - television, books, newspapers and magazines - design has been seen as a slightly frivolous "extra" that

Design cannot be just tacked on to create a new image

can be tacked on afterwards, if necessary, but that can be done away with if costs are being squeezed.

There have been exceptions, of course. Mr Kenneth Gill, a partner in the Pennington Group, which was one of the founder companies in D & AD, has designed many outstanding products for British companies, as an exhibition at the Victoria and Albert Museum's Boilerhouse gallery last month demonstrated.

British Rail's 'High Speed Train', the Parker 25 pen, the Kenwood Chef mixer, razors for Wilkinson, irons for Morphy Richards, the Kodak Instamatic and many other products are his.

Unfortunately, though such talents may exist in greater numbers, few are given the

opportunities by British companies, and the consequences have been plain to see.

British products find it hard to gain acceptance in overseas markets, where design is given a higher recognition and is seen as integral part of a product. In turn, as the British public has demanded better designed goods, people have turned away from British products in favour of the better looking German, Japanese, Italian and French models.

The motor industry is one prime example - though design alone is not to blame for its ills. But another current boom area for importers is that of small electrical appliances, where companies such as Braun, which have taken design seriously for many years, are taking a rapidly increasing share of sales.

Fortunately, the problem has at last been recognised - thanks largely to vigorous lobbying on the part of established British designers such as Sir Terence Conran - and the Government has put its weight behind a drive to get British management to recognize that design is one of the first and most vital aspects of product marketing.

The Department of Industry has been funding a design consultancy scheme through the Design Council since the start of the year, offering companies up to 15 days' free design consultancy and a further 15 days at half-price. The scheme has been promoted with full page advertisements in the quality press on the theme "Design for Profit", showing a number of examples of British design success stories.

These include the British Leyland Range Rover, the Sinclair ZX81 Computer, the Dunlop Max 1500 carbon fibre tennis racket, the Westland 30 Helicopter and designs from Laura Ashley.

"It is a sad state of affairs that

so many British companies can not stand up to foreign competition because they pay too little attention to design," runs the advertisement. "Yet in Britain we have some of the best in-house and consultant designers and engineers in the world."

"When times are tough, good design should be even more of a priority, because you have to be even more competitive. And all too often the design budget is the first to go."

One area in which design can totally alter the fortunes of a company is retailing, as the Burton Group, which has had a long relationship with design consultants Frith & Company, has demonstrated and as is now

When times are tough, good design should be a priority

being shown, not for the first time, by Sir Terence Conran.

Sir Terence is currently focusing his attention on the Mothercare side of his Habitat/Mothercare empire and we shall shortly be seeing the first significant fruits of his labours there with the launch of a new range of merchandise.

Last month, he gave up the chairmanship of the menswear retailers, J. Hephworth, but not before he had been on hand to see the total relaunch of the chain, with a new range of merchandise, new store designs and corporate style and a new advertising campaign to put across the changes.

"We have spent more than a year planning and putting into action what is, in effect, the rebirth of a famous high street name", Mr Bob Russell, manag-

Industrial notebook

Invisible earners in need of justice

The most successful of our invisible earners are those of professional firms such as consulting engineers and architects. In little more than 10 years their overseas earnings have grown by nearly a factor of 20 and are now approaching £1bn.

This is much faster progress than even the fast-growing sectors in merchandise trade, such as pharmaceuticals (eightfold) and textiles (elevenfold).

Moreover, invisibles are four to five times more profitable than merchandise exports, which often have a 25 per cent import content, so that even a modest expansion in invisibles can be equivalent to a substantial increase in merchandise trade.

It is obvious, therefore, that this is the type of activity which should be encouraged to grow to the fullest extent. Yet there are still many obstacles we put in the way of our professional companies which greatly restrict their progress.

The consultancy organizations enjoying a monopoly within the nationalized industries serve a variety of clients at home and abroad, and, in the process, frequently undermine the viability of private firms. The latter make two serious accusations against nationalized consultancies:

● The nationalized consultancies compete unfairly, for who can unravel their true costs from their labyrinthine finances?

● A much more serious charge is that they prevent private firms from gaining any experience at all in many important fields. If a professional firm cannot claim successes in its home market, it is at a grave disadvantage against its foreign competitors.

French and German firms do not suffer from such debilitating restrictions, which in this country have gained momentum largely because of the aspirations of a few over-ambitious men in some of the nationalized consultancies. In France and Germany, everything is done to encourage private firms to grow and to prosper.

It would, in any case be in the interest of the nationalized consultancies to engage in constructive competition as well as cooperation in joint

ventures with private firms, for there is much the two could learn from each other. They could also benefit from the very high reputation which British firms have built up, all over the world.

Taxation is another important limiting factor on the rapid expansion of professional firms overseas. Although the situation has improved, it is still a great deal easier for foreign firms to build up reserves for financing their ambitious promotion programmes. As international competition intensifies, it is imperative to spend more on promotion and travel. But British companies frequently lack adequate funds for this.

The problem can be particularly acute among partnerships, where there are two great disadvantages.

First, every time a partner retires, the firm is "decapitated" to the extent of his share of the assets; no long-term capital base can, therefore, be built up. In addition, it is very difficult to attract long-term capital as distinct from overhead facilities.

There is a need, therefore, for further tax reform to provide firms with adequate funds for promotion.

Provided we place the "services" on an equal footing with industry, our prospects abroad should be highly encouraging. Indeed, it is quite reasonable to expect that the overseas earnings of the professions alone could take the place of, say, the motor industry exports within five to ten years.

When Britain's oil reserves run out, it will be the service sectors (and not our shrinking manufactures) which will fill the gap. The trade figures for the past decade alone amply justify this seemingly optimistic expectation.

Thus, between 1970 and 1980 world trade in services grew by an astonishing 17 per cent a year in real terms compared with 6 per cent a year for manufactures. This is where the future lies and this is where we should concentrate our efforts to reinforce an already notable success.

Andrew Tessler

The author is chairman of ITI Research, an international consultancy firm.

This advertisement is issued in compliance with the requirements of the Council of the Stock Exchange. It does not constitute an invitation to any person to subscribe for or purchase any Preference Shares.

Extel GROUP

EXTEL GROUP PLC

(Incorporated in England under the Companies Act 1962 and 1967)

Issue of 838,198 10% per cent. Cumulative Preference Shares of £1 each

The Council of the Stock Exchange has admitted the above-mentioned Preference Shares to the Official List. Particulars of the rights attaching to them are available in the Extel Statistical Service and copies of the statistical card may be obtained during usual business hours on any weekday (Saturdays excepted) for the next fourteen days from:

Baring Brothers & Co., Limited,
8 Bishopsgate,
London EC2N 4AE

or from

Hoare Govett Limited,
319/325 High Holborn,
London WC1V 7PB.

14th June 1983

Japan survey shows drop in company profits

Tokyo (Reuters). The recurrent profits of Japanese companies fell 2.7 per cent in the first quarter of 1983 from a year earlier compared with a 14.6 per cent year-on-year fall in the preceding quarter, the Japanese finance ministry said in a survey.

The survey was based on a random sampling of 20,493 companies out of 295,182, excluding banks and insurance firms, with a capital of over yen 10m (£25,575.4). This is the biggest survey of this kind in Japan by Government agencies and private research groups.

The survey said first-quarter sales were up 0.4 per cent from a year earlier.

Manufacturing sector companies reported a 17 per cent fall in recurrent profits in the first quarter after a 12 per cent fall in the preceding quarter, and a 12.1 per cent year-on-year gain in sales after a 17.2 per cent fourth-quarter 1982 fall, the survey added.

Japan Air Lines has new position for super executive.



Japan Air Lines introduce a completely unique class of travel on all B747s.

In our Super Executive "J" Class the seats are wider, more comfortable and have a footrest and extra luggage space.

And, because there are 20% fewer seats in the cabin, they are only 8 abreast.

And all for a mere 5% premium over our Executive Class.

Of course you still get the concerned

service and attention to detail for which JAL is renowned.

For more details please contact your local travel agent.



The longer the flight, the more the details matter.

JAPAN AIR LINES

To the Holders of KYOWA HAKKO KOGYO CO., LTD.

U.S. \$40,000,000

6 1/4% Convertible Bonds 1997

NOTICE OF FREE DISTRIBUTION OF SHARES AND ADJUSTMENT OF CONVERSION PRICE

Pursuant to Clause 7 (B) of the Trust Deed dated January 31, 1983 under which the above described Bonds were issued, you are hereby notified that a free distribution of Shares of our Company at the rate of 0.05 share for each share held will be made to shareholders of record as of June 30, 1983.

As a result of such distribution, the Conversion Price at which shares are issuable upon conversion of said Bonds will be adjusted pursuant to Condition 6 (A) of the Bonds from 782 Japanese Yen to 755.7 Japanese Yen effective as of July 1, 1983.

KYOWA HAKKO KOGYO CO., LTD.

Dated: June 14, 1983



U.S. \$15,000,000.00

UNITED MIZRAHI INTERNATIONAL INVESTMENTS NV

Guaranteed Floating Rate Notes 1987

For the six months

U.S. \$15,000,000.00

The Notes will carry an

interest rate of 10 1/4% per annum

Coupon Value U.S. \$15,000,000

Listed on The Stock Exchange, London

Agent Bank - National Westminster Bank PLC, London

Notice to Holders of

KYOWA HAKKO KOGYO CO., LTD.

£15,000,000

6 1/4 Per Cent. Convertible Bonds Due 1986

The Board of Directors of the Company decided on the 26th May 1983 to effect a free distribution of shares at the allocation ratio of 0.05 shares for every one share held by shareholders on register at 30th June 1983, at 3 p.m. Tokyo time. As a result of the above the conversion price of the captioned bonds shall be adjusted from the present price of Yen 461 to Yen 439 as from the 1st July 1983 Tokyo time in accordance with conditions 6(A)(1) of the conditions of the bonds.

The Industrial Bank of Japan Limited
Principal Paying Agent

NOTICE OF REDEMPTION AND TERMINATION OF CONVERSION RIGHTS

Komatsu Ltd.

(Kabushiki Kaisha Komatsu Seisakusho)

7 1/4% Convertible Debentures due June 30, 1990

NOTICE IS HEREBY GIVEN that, pursuant to the provisions of the Indenture dated as of July 1, 1975, as supplemented by a First Supplemental Indenture dated as of September 1, 1982 (collectively as of October 1, 1982) between Komatsu Ltd. (the "Company") and First National City Bank, N.A. (the "Trustee") under which the above-designated Debentures were issued, \$547,000 aggregate principal amount of the said Debentures of the following distinctive numbers has been drawn by lot for redemption on June 30, 1983 through the operation of the sinking fund at the redemption price of 100% of the principal amount thereof:

REGISTERED DEBENTURES WITH PREFIX LETTERS NV
(To be redeemed in full at \$1,000 each)

489 1234 1204 1295 1276 1207 1208 1486 1469 1470 1471 2160 2280 2436 2119 2100

(The principal amount thereof to be redeemed appearing in parentheses after the number)

509 (3,000) 797 (1,000) 805 (5,000)

REGISTERED DEBENTURES WITH PREFIX LETTERS EV
(To be redeemed in full at \$1,000 each)

480 (2,000) 747 (10,000) 749 (10,000) 807 (3,000)

474 (11,000) 748 (10,000) 750 (10,000) 971 (10,000)

REGISTERED DEBENTURES WITH PREFIX LETTERS EX
(To be redeemed in full at \$1,000 each)

575 (1,000) 1350 (1,000) 1458 (25,000) 1482 (25,000) 1486 (2,000)

577 (8,000) 1439 (25,000) 1459 (25,000) 1483 (25,000) 1470 (1,000)

1093 (5,000) 1440 (25,000) 1460 (25,000) 1464 (25,000) 1472 (25,000)

1329 (2,000) 1457 (25,000) 1461 (25,000) 1465 (25,000)

COUPON DEBENTURES WITH PREFIX LETTERS M
(To be redeemed in full at \$1,000 each)

977 2426 4494 2490 1019 1384 1249 1982 2050 2525 1115 4400 4474 4479 4480 4507 4507

1007 2429 4497 2495 0712 1383 1024 1982 2057 2057 1119 4400 4474 4479 4482 4508 4508

1211 2490 4492 0021 0077 1386 1024 1985 2058 2058 1121 4404 4479 4482 4485 4501

1382 2490 4493 0059 1141 1388 1710 2050 2050 2052 3125 4484 4479 4482 4483 4484 4485

1246 2064 2438 3144 1240 1451 1738 2024 2068 3100 4058 4480 4474 4479 4480 4481

1763 2701 2838 3145 1302 1452 1731 2025 2060 3101 4452 4470 4474 4480 4500 4500

2434 3760 0051 0052 1240 1454 1732 2078 2061 3102 4453 4470 4479 4480 4501 4502

2449 4631 0053 0060 1307 1471 1739 2077 2139 2107 4458 4472 4479 4480 4503 4503

2451 4541 0048 0016 1307 1385 1982 2063 2067 3107 4461 4479 4479 4480 4504 4504

The Debentures referred to above will become due and payable and, UPON PRESENTATION AND SURRENDER THEREOF (those Coupon Debentures to have all coupons appertaining thereto maturing after June 30, 1983) will be paid on said redemption date at Citibank, N.A., 111 Wall Street, New York, New York 10043, principal offices of Citibank, N.A. in Amsterdam, Brussels, Frankfurt/Main, London, Milan, Paris, and Luxembourg (S.A. in Luxembourg), and the principal offices of J. Henry Schroder Wagg & Co. Ltd. (London), Banque Européenne de Tokyo, S.A. (Paris), Kreditbank S.A. Luxembourg (Luxembourg), The Fuji Bank, Limited (London), The Bank of Japan, Ltd. (London) and The Sumitomo Bank, Limited (London), as the Company's Paying Agents. From and after redemption date, interest on said Debentures will cease to accrue.

Interest payable June 30, 1983 to holders of fully Registered Debentures shall be paid to the persons in whose names the Debentures are registered at the close of business on the Regular Record Date which shall be June 15, 1983 and said interest shall be mailed to the registered holders. If the holder does not elect to convert, coupons maturing June 30, 1983 should be detached and presented for payment in the usual manner.

The above specified Debentures called for redemption may be converted at the option of the holders thereof into Common Stock of the Company, American Depositary Receipts ("ADRs") or European Depositary Receipts ("EDRs") representing Common Stock of the Company at any time prior to, but not after, the close of business on June 28, 1983 at a conversion price (with Debentures taken at their principal amount translated into Japanese Yen at the rate of ¥294.20 equals \$1) of 348.70 Japanese Yen per share of Common Stock. At the Close of Business on June 28, 1983 SUCH CONVERSION RIGHTS WILL TERMINATE AS TO ALL DEBENTURES BEING REDEEMED AS SPECIFIED ABOVE.

Due to a change in the Japanese Commercial Code effective October 1, 1982 the Company shall effect delivery of only that number of issuable shares, ADRs or EDRs representing a unit of 1000 common shares or an integral multiple thereof. For any conversion not resulting in an integral multiple of 1000 shares, the Company will pay a cash adjustment in United States Dollars based on the market price of the common stock on the Tokyo Stock Exchange and the dollar/yen exchange rate on the date of conversion. At the present time the conversion of a single \$1,000 Debenture would result only in the payment of a cash adjustment and no shares would be issued. If converted on May 23, 1983 the cash adjustment would be approximately \$1,778 for such \$1,000 Debenture. If more than one Debenture is deposited for conversion at any time by the same holder, the number of shares issuable upon conversion shall be calculated on the basis of the aggregate principal amount of Debentures deposited.

In order to exercise the right to convert the above listed Debentures, the holder must deposit the Debenture on or prior to June 28, 1983 at any of the above mentioned offices of the Company's Paying Agents (acting as Depositories or Subdepositories) together with a written election to convert stating the name(s) and the address(es) of the person(s) to whom the ADRs, EDRs, common stock and/or cash adjustment is to be delivered. Bearer Debentures deposited for conversion must have the June 30, 1983 and all subsequent coupons attached. Fully registered Debentures deposited on or after June 15, 1983 must be accompanied by the interest payable on June 30, 1983.

On May 23, 1983, the closing sale price on the Tokyo Stock Exchange of the Common Stock was 500 Yen per share.

KOMATSU LTD.
By: CITIBANK, N.A.
as Trustee

May 27, 1983

This Prospectus includes information given in compliance with the Regulations of the Council of The Stock Exchange in London, for the purpose of giving information to the public with regard to Malaysia and the Stock. Malaysia has taken all reasonable care to ensure that the facts stated herein are true and accurate in all material respects and that there are no other facts the omission of which would make misleading any statement herein whether of fact or of opinion. Malaysia accepts responsibility accordingly.

Dated 14 June 1983

Application has been made to the Council of The Stock Exchange in London for the £50,000,000 Loan Stock 1988 (the "Stock") to be admitted to the Official List for quotation in the Gilt-edged market.



Malaysia

Issue on a yield basis of

£50,000,000 Loan Stock 1988

payable as to £30 per cent. of the nominal amount on application
and as to the balance of the issue price not later than 21 September, 1983
with interest payable half yearly on 3 January and 3 July

The Issue has been underwritten by
Morgan Grenfell & Co. Limited

County Bank Limited

Lloyds Bank International Limited

N.M. Rothschild & Sons Limited

Standard Chartered Merchant Bank Limited

Kleinwort, Benson Limited

Samuel Montagu & Co. Limited

J. Henry Schroder Wagg & Co. Limited

S.G. Warburg & Co. Ltd.

PROCEDURE FOR APPLICATION

Each application must be made in the form of the application form provided herewith and must be lodged with National Westminster Bank PLC, New Issues Department, P.O. Box 79, Drapers Gardens, 12 Throgmorton Avenue, London EC2P 2BD, not later than 10.00 a.m. on Thursday, 16 June, 1983 and must comply with the provisions of "Terms of Payment in respect of Applications" below.

Applications for Stock must be for a minimum of £100 nominal amount of Stock and thereafter for the following multiples of Stock:

Amount of Stock applied for	Multiple
£100—£2,000	£100
£2,000—£20,000	£500
£20,000—£100,000	£1,000
£100,000 or greater	£25,000

Morgan Grenfell & Co. Limited, on behalf of Malaysia, reserves the right to reject any application and to accept any application in part only. If any application is not accepted the amount paid on application will be returned by post at the risk of the person submitting the application and if any application is accepted for a smaller amount of Stock than that applied for, the balance of the amount paid on application will be so returned without interest, and in the meantime all such amounts will be held in a separate account.

Morgan Grenfell & Co. Limited, on behalf of Malaysia, will announce the basis of allotment by 9.30 a.m. on Friday, 17 June, 1983. It is expected that confirmation of allotments will be despatched on that day. Acceptances of applications for Stock will be conditional until such time as the Council of The Stock Exchange admitting the Stock to the Official List on or before Wednesday, 22 June, 1983. Morgan Grenfell & Co. Limited, on behalf of the Underwriters, has the right in certain circumstances to terminate the underwriting agreement which is subject to certain conditions and accordingly, if such rights are exercised or the underwriting does not become unconditional, no applications for Stock will be accepted or, as the case may be, acceptances of applications for Stock will become void (see "General Information Underwriting Arrangements" below).

TERMS OF PAYMENT IN RESPECT OF APPLICATIONS

Each application, unless made by a recognised Bank or Stockbroker taking advantage of the alternative method of payment described below, must be accompanied by a cheque made payable to "National Westminster Bank PLC and crossed 'Malaysia Loan'" representing payment at the rate of 130 per cent. of the nominal amount of Stock applied for. Such cheques must be drawn on a branch in the United Kingdom or the Channel Islands of a bank which is either a member of the London or Scottish Clearing Houses or which has arranged for its cheques to be cleared through the facilities provided for the members of those Clearing Houses.

The alternative method of payment is available only to recognised Banks or Stockbrokers who irrevocably engage in the application forms lodged by them to pay National Westminster Bank PLC, New Issues Department, P.O. Box 79, Drapers Gardens, 12 Throgmorton Avenue, London EC2P 2BD for credit to the account designated "Malaysia Loan" by 10.00 a.m. on Wednesday, 22 June, 1983 the amount in Town Clearing Funds representing payment at the rate of £30 per cent. of the nominal amount of the Stock in respect of which their applications shall have been accepted.

Morgan Grenfell & Co. Limited, on behalf of Malaysia, reserves the right to instruct National Westminster Bank PLC to retain the relevant allotment moneys and to delay the return of such application moneys if any pending clearance of applications remains outstanding.

The balance of the amount payable on any Stock allotted must be paid on or before 21 September, 1983. Such balance may be paid in advance of its due date but no discount will be allowed or interest paid on such balance for any period prior to 21 September, 1983. Failure to pay such balance when due will render all amounts previously paid liable to forfeiture and the allotment liable to cancellation. Interest at the rate of two per cent. above the Base Rate of National Westminster Bank PLC may be charged on such balance if accepted after its due date. Malaysia further reserves the right, in default of payment of such balance, to sell any such Stock fully paid for its own account.

The expression "recognised Bank or Stockbroker" shall mean any organisation which is a recognised bank for the purposes of the Banking Act 1979 and any firm of Stockbrokers which is a member of The Stock Exchange of the United Kingdom and the Republic of Ireland and such other banks or brokers as Morgan Grenfell & Co. Limited, on behalf of Malaysia, shall at its absolute discretion think fit for the purposes of the issue.

The expression "Town Clearing Funds" shall mean a cheque or banker's payment for £10,000 or more drawn on a Town Clearing Branch of a bank in the City of London.

DELIVERY

Renounceable allotment letters (partly paid) in respect of Stock allotted will be despatched on Wednesday 22 June, 1983 by first class post to, and at the risk of, the person submitting the application in accordance with the instructions stated on the application form.

Allotment letters may be split up to 3.00 p.m. on 18 September, 1983 in accordance with the instructions contained therein into denominations or multiples of £100 nominal amount of Stock.

Unless a duly renounceable allotment letter with the registration application form and/or the form of application for Stock in bearer form duly completed is received by National Westminster Bank PLC, New Issues Department, P.O. Box 79, Drapers Gardens, 12 Throgmorton Avenue, London EC2P 2BD, on or before 21 September, 1983, the Stock, represented by such allotment letter, will, provided it is fully paid, be registered in the name of the original allottee and thereafter Stock in registered form will be transferable only by instrument of transfer.

Allotment letters will provide for Stockholders to elect to take delivery of Stock in bearer rather than registered form. Stock in bearer form will be represented by bearer bonds which will be available in the denomination of £5,000.

Each Stockholder who elects in the allotment letter to receive bearer bonds may elect to receive them in one of the three following ways:

- By collection from the offices of National Westminster Bank PLC, Stock Office Services, 20 Old Broad Street, London EC2N 1EJ.
- By post at the risk of the applicant. National Westminster Bank PLC will ensure any package destined for an address in the United Kingdom provided a cheque is enclosed with the allotment letter made out for 50p per £1,000 nominal amount of bearer bonds to be sent (minimum payment £25). Insurance rates for other countries will be quoted on request.
- By delivery to an existing account with Euro-clear Operations Centre or CEDEL S.A.

Bearer bonds are expected to be available for delivery on and after 12 October, 1983.

Stock Certificates in respect of Stock in registered form will be despatched to the registered holders in the case of joint holders to the first named at their registered addresses, at their risk, by National Westminster Bank PLC on 12 October, 1983. After such date the relevant allotment letters will cease to be valid for any purpose.

No Stock Certificate will be issued and no bearer bond will be made available unless the Stock to be represented thereby is fully paid.

DETERMINATION OF RATE OF INTEREST AND ISSUE PRICE

The Stock will have attached such rate of interest and be issued at such price as will result in the Stock having a gross redemption yield determined on the basis described below (the "Issue Yield").

The Issue Yield shall mean the sum of 100 per cent. and the gross redemption yield rounded to three places of decimals (with 0.0005 being rounded upwards), on 10^{1/2} per cent. Treasury Stock 1989 at 3 p.m. on Wednesday, 15 June, 1983. Such gross redemption yield will be expressed as a percentage and will be calculated on the basis set out under "Calculation of Gross Redemption Yield" below, in connection with which the price cum dividend of such Treasury Stock will be the price determined by Morgan Grenfell & Co. Limited to be the arithmetic mean of the respective bid and offered prices quoted on a dealing basis for settlement on the following business day by three jobbers in the Gilt-edged market.

The rate of interest attaching to the Stock will be determined by Morgan Grenfell & Co. Limited and will be an integral multiple of one-quarter of one per cent. and will be as high as possible consistent with an issue price as near as possible to, but not greater than, par. The issue price will also be determined by Morgan Grenfell & Co. Limited and will be expressed as a percentage rounded to three places of decimals (with 0.0005 being rounded upwards).

It is intended that notice of the Issue Yield, rate of interest and issue price will be published in the Financial Times or The Times on Thursday, 16 June, 1983.

CALCULATION OF GROSS REDEMPTION YIELD

The gross redemption yield will be calculated on the basis indicated by the Joint Index and Classification Committee of the Institute and Faculty of Actuaries as reported in the Journal of the Institute of Actuaries Vol. 105, Part 1, 1979, Page 18 as follows:

"Redemption yields are calculated taking account interest as part of the price and using a true compound interest formula i.e. finding the value of v to give $f(v) = 0$ where

$$f(v) = v \cdot \left(C + \frac{1-v}{1-v} + Rv \right) - P - \sum B_i v^i$$

and v is the discounting factor per period (e.g. half-year),

R is the redemption amount,

C is the coupon amount per period,

P is the actual coupon due at the next payment date (which may be zero if the stock is already quoted "ex dividend" or may be a first fractional payment),

n is the integral number of periods till redemption from the next payment date,

p is the fractional period till the next payment date,

P is the price actually payable (with "accrued interest" not "stripped out", but, for shorts, added in),

B_1, B_2 , etc. are outstanding calls on a partly-paid stock,

B_1, B_2 , etc. are the fractional periods till these calls are due.

When the root of $f(v)$ has been found the gross yield, y , convertible half-yearly is obtained from

$$y = 200(1/v - 1) \text{ per cent.}$$

where λ is the frequency of coupon payment per year.

PARTICULARS OF THE STOCK

The issue of the £50,000,000 Loan Stock 1988 (the "Stock") of Malaysia will be made by the Minister of Finance of Malaysia on behalf of Malaysia under the External Loans Act, 1982 (as amended) of Malaysia and will be constituted by a Deed Poll to be entered into by Malaysia. The following includes a summary of, and is subject to, certain detailed provisions of the Deed Poll, copies of which will be available for inspection at the offices of the Registrar and Paying Agents referred to below.

STATUS

The Stock will be a direct, unconditional and general obligation of Malaysia and the full faith and credit of Malaysia will be pledged for the due and punctual performance of the principal of and interest on the Stock and for the due and timely performance of all obligations of Malaysia with respect thereto. Subject to "Negative Pledges" below, the Stock will rank pari passu with all other unsecured indebtedness of Malaysia from time to time outstanding. "Indebtedness" means all indebtedness of Malaysia in respect of moneys borrowed by Malaysia and guarantees given by Malaysia in respect of moneys borrowed.

The Stock will be available either in registered form, transferable in amounts and multiples of one penny, or, at the option of the holder, in bearer form, represented by bearer bonds which will be available in the denomination of £5,000. Stock in registered form may be exchanged for bearer bonds and vice versa at any time after 12 October, 1983. Renounceable allotment letters (partly paid) in respect of the Stock will be despatched on 22 June, 1983. Certificates in respect of the Stock in registered form and bearer bonds in respect of Stock in bearer form will be available on 12 October, 1983 provided the balance of the moneys payable has been duly paid.

THE APPLICATION LIST WILL OPEN AT 10.00 A.M. ON THURSDAY, 16 JUNE, 1983 AND WILL CLOSE LATER THE SAME DAY.

Receiving Bank

National Westminster Bank PLC
New Issues Department
P.O. Box No. 79
Drapers Gardens
12 Throgmorton Avenue
London EC2P 2BD

Registrar and Transfer Office

National Westminster Bank PLC
Registrar's Department
P.O. Box No. 82
37 Broad Street
Bristol BS99 7NH

Principal Paying Agent and Exchange Agent

National Westminster Bank PLC
Stock Office Services
20 Old Broad Street
London EC2N 1EJ

Paying Agents

Morgan Guaranty Trust Company of New York
35 Avenue des Arts
B-1040 Brussels

Kreditbank S.A. Luxembourg
43 Boulevard Royal
P.O. Box 1108
Luxembourg

Legal Advisers to the Underwriters

Slaughter and May
35 Basinghall Street
London EC2V 5DB

Affin & Ooi
8th Floor, Hongkong Bank Building
2 Laboh Ampang
Kuala Lumpur

Brokers

W. Greenwell & Co.
Bow Ball House,
Broad Street
London EC4M 8EL
and
The Stock Exchange in London

Rowe & Pitman
City Gate House
39-45 Finsbury Square
London EC2A 1JA
and
The Stock Exchange in London

Transfer

The Registrar and Transfer Office for the Registered Stock will be at the specified office of the Registrar, The initial Registrar is National Westminster Bank PLC and its specified office is at Registrars' Department, P.O. Box 82, 37 Broad Street, Bristol BS99 7NH or such other place or places in England as Malaysia may from time to time agree and notify to the Stockholders in accordance with "Notices" below. Malaysia reserves the right to terminate the appointment of the Registrar provided that no such termination will take effect until a new Registrar having a specified office in England has been appointed and notice of his appointment has been given to Stockholders in accordance with "Notices" below.

Registered Stock will be transferable in amounts and multiples of one penny by an instrument in writing as if the Stock were a security to which Section 1 of the Stock Transfer Act 1963 of Great Britain applied. The Bearer Bonds will be transferable by delivery.

Redemption

(a) **Mandatory Redemption**
Malaysia will redeem the Stock (unless previously purchased and cancelled) in par on 3 July, 1988.

(b) Purchases

Malaysia may at any time purchase Stock in the open market at any price or by private agreement at a price (exclusive of accrued interest and expenses) not exceeding 115 per cent. of the middle market quotation of the Stock on The Stock Exchange in London (or, failing such quotation, on such other stock exchange or securities market on which the Stock is listed for the time being) at the close of business on the last business day before the date of purchase, but not otherwise.

(c) Cancellation

Stock so redeemed or purchased shall be cancelled forthwith and will not be available for re-issue.

Payments

In the case of Registered Stock, payments of principal and interest will be made in pounds sterling by cheque or warrant, drawn on a Town Clearing Branch of a bank in the City of London, which will be posted, no later than the due date for the relevant payment, at each Stockholder's risk, to persons who are registered as Stockholders at the close of business on the relevant Record Date or to their nominated agents and made payable to such Stockholders. In the case of joint holders in respect of a particular holding, the cheque or warrant (made payable to all such holders) will be sent to the first named on the Register unless instructions to the contrary are given in writing to the Registrar by all such holders. The "Record Date" shall mean (save in respect of the first Interest Payment Date, in respect of which the Record Date will be 2 December, 1983) the thirtieth day before an Interest Payment Date but such thirtieth day shall fall on a day on which the specified office of the Registrar is not open for business, then the Record Date shall mean the first day thereafter on which such specified office is open for business.

In the case of Bearer Stock, payments of principal will only be made against surrender of the Bearer Bonds and, subject as mentioned above, payments of interest will only be made against surrender of Coupons, at the specified office of the Paying Agent in London in pounds sterling or, at the option of the bearer, at the specified office of any other Paying Agent, by a cheque in pounds sterling drawn on, or by transfer to an account in pounds sterling maintained by the payee with, a bank in London.

Bearer Bonds should be surrendered for redemption together with all unreturned Coupons, failing which the face value of any missing unreturned Coupon (or, in the case of partial payment in respect of any Bearer Bond being made, the proportion of such face value which the amount of the partial payment bears to the principal amount due in respect of the Bearer Bonds) will be deducted from the principal sum due for payment. Any amounts of principal or interest deducted will be paid in the manner mentioned in the preceding paragraph against surrender of the relevant missing Coupon at any time before the expiry of a period of 10 years after the due date for such redemption, whether or not such Coupon would otherwise become void pursuant to "Prescription" below.

If the due date for payment of any amount of principal or interest in respect of any Bearer Bond or Coupon is not a day on which banks are open for business in the location of the specified office of the Paying Agent at which the Bearer Bond or Coupon in question is presented for payment and (in the case of payment by transfer to an account maintained by the payee in London as referred to above) on which dealings in pounds sterling may be carried on in both London and in such place, then the holder thereof shall not be entitled to payment of such amount until the next following such day in such place or places or to any interest or other sum in respect of such day.

If the redemption date for any Bearer Bond is not an Interest Payment Date, interest accrued since (and including) the last preceding Interest Payment Date will be paid only to the holder, against surrender of the relevant Bearer Bond.

The initial Paying Agents and their specified offices are listed below. Malaysia will at all times maintain a Paying Agent in London and in one country in continental Europe. The Stockholders will be notified in accordance with "Notices" below of the replacement of any Paying Agent, any change in the specified office of a Paying Agent and the appointment of any additional Paying Agents.

All payments of principal and interest in respect of the Stock are and will be exempt from any and all restrictions relating to exchange control imposed by Malaysia, but will be subject to any fiscal or other laws applicable in England and (where the relevant Bearer Bonds or Coupons are surrendered for payment at the specified office of a Paying Agent outside England) in the jurisdiction where such specified office is located.

Taxation

All payments of principal and interest made by Malaysia in respect of the Stock and all other obligations of Malaysia as represented by the Stock are and will be exempt from, and will be made without withholding or deduction for or on account of, any present or future taxes, duties, levies, assessments or other charges of whatsoever nature (including estate and succession duties) now or hereafter imposed or levied on the Stock or any holder thereof.



Lilliput goes for smaller funds

By Baron Phillips
Property Correspondent

Another property unit trust is to be launched this month with the specific aim of attracting funds from small pension schemes.

Under its apposite name, Lilliput Property Unit Trust is looking for launch capital of about £5m. But its chairman, Mr David Pickford, who is also chairman of the highly successful Haslemere Estates, says that the trust will be happy to attract £2.5m in its first issue which closes at the end of June.

The trust has an impressive line-up on its committee of management. It includes representatives from Courts Pension Fund, Baring Brothers, Rowan Investment Managers and the Akroyd and Smithers Pension Fund. The property advisers and managing agents to the trust are Rowe and Pitman Property Services.

Lilliput has a clearly defined investment strategy, according to Mr Pickford. It is aiming to acquire a portfolio of good quality, small commercial investments with particular emphasis on towns influenced by the M25 orbital motorway now being instructed. The trust believes that there is tremendous scope for rental growth from the impact of the motorway development.

Naturally the size of the trust dictates the amount it can spend on any one single investment. Mr Pickford believes that the trust will be able to spend £1m on single retail or industrial investment. For the moment, office investments will probably fall outside the investment criteria.

US doubts Unctad strategy

From Dessu Trevisan, Bolgrade

Mr Kenneth Dam, the United States Under-Secretary in the Department of Trade, yesterday expressed misgivings about the effectiveness of a global commodity agreement in improving wide swings in prices which have been the major complaint of the developing countries as the United States delayed the ratification of the agreement.

Mr Dam assured the United Nations Conference on Trade and Development that the United States was sympathetic to the problems faced by developing countries heavily dependent on commodity exports. But he also said that the more effective way was to work out arrangements that would provide finance to commodity exporting countries when the prices fell.

The belief that a commodity agreement would resolve the problem only raised unrealistic expectations he said.

Earlier last week, Egypt's



Mubarak call for a new development bank

30 doing so shortly. But without the US support, the minimum total in direct government contribution to it will not be attained and this means that the chances that the fund might begin operation from January next are extremely thin.

Mr Dam, who appeared to have taken some pain to keep

the options open, said the industrialized countries were now beginning to lead an expansion of the world economy. As inflation plunged industrial production rose and the challenge now was to turn the revival of the North into a global one.

The hopes of developing countries to cope with their debt problems lay in growing open markets. To illustrate the point against concerted criticism that the US was not doing enough to meet the pressing needs of the South, Mr Dam said that two years ago, imports from the developing non-oil producing countries to the US amounted to about \$70,000m and that they were growing at an annual rate of 20 per cent, he added.

He left no doubt that the US regarded the existing international institutions, the IMF, the World Bank and other regional banks, as being able to cope effectively with the problems of development.

£25m state rescue for Italian TV makers

From John Earle
Rome

The Italian Government has approved the formation of a new company between Zanussi, Indesit, and the public sector group Rel, designed to ensure the survival of the country's television manufacturing industry.

The company, as yet unnamed, will be launched with a capital of 600m lire (£25.2m) divided between Zanussi (43.4 per cent), Indesit (10.8 per cent) and Rel (45.8 per cent).

Rel (Ristrutturazione Elettronica) is a government company set up by the Ministry of Industry for rescue operations in the electronics sector.

The same meeting of ministers which gave the green light to the new television manufacturing company also approved seven other projects between Rel and smaller private electronics companies.

Besides the 27.5 bn lire (£12.5m) which Rel will put up as its share of the new company's capital, the government has also promised another 150 bn lire (£63m) after its recovery programme has been drawn up. Eventually, it is intended that Zanussi and Indesit will buy out Rel.

There is also talk of a small minority share being taken by Phillips of Holland, with whom an agreement on collaboration was concluded last month.

The new company is to employ about 1,500 people, leaving about 1,100 in Indesit and Zanussi redundant.

The new television company has yet to receive the formal assent of Zanussi, which chairman, Signor Lamberto Mazza, has been holding out for a 51 per cent stake. But some reports suggest that he may leave his post after the next shareholders' meeting.

The Zanussi group, which employs nearly 30,000 people in all its sectors, has been going through financial difficulties. It lost 130.2 bn lire (£54.7m) in 1982, while at the end of the year its debts amounted to 670 bn lire (£281.5m).

Move to boost trade with Latin America

By John Lawless

British trade specialists have just completed a study which shows that sales to Latin America were not, as feared, badly affected by the conflict with Argentina.

But they are now seriously concerned that the continent's debt-ridden image is making British exporters shy away in such large numbers as to threaten sales.

"If you extract trade with Argentina, worth £37m, our sales to Latin America rose by 5.5 per cent last year", said Mr Michael Valdes Scott, recently appointed chief executive of the Latin American Trade Advisory Group.

"It shows that the Falklands factor was not detrimental to trade elsewhere - and in fact was a fantastic piece of publicity, showing that our machinery works."

"But we used to have 40 per cent of the Latin American market before the war, and the UK share is now down to 1.9 per cent. The market has not vanished, but the competition, notably the Germans, Japanese, French and Italians, have been overtaking us."

A series of seminars has been scheduled by the trade advisory group to draw more British

companies into the selling effort in Latin America.

The first, chaired by Sir Peter Macadam - but with a high-powered line-up that includes directors from Inchcape, Balfour Beatty Engineering and Hawke Siddeley Power Engineering - is being staged at Canning House, London, on June 28. It will be repeated in Birmingham on September 14 and in Manchester on October 4.

"The large companies are already stuck in there, but medium-sized firms do not dare invest £30,000 in order to send their salesmen dashing around Latin America", Mr Scott said.

"But we can, for example, put them in touch with agencies which have been going into the market for years and, for a fee of about £3,000 plus commission on sales, will work on promotion and distribution of goods over the next 18 months."

"It is vital that we should start educating firms now so that when the economic bubble in Latin America rises again in the early part of 1985, they will be well-placed."

He stressed that the recent economic downturn - in an import market worth \$100bn two years ago - had not affected all Latin American countries.

Threat to Dry Sack sherry sales

From Harry Debelius, Madrid

A legal battle resulting from the nationalization of the huge Rumasa business empire in Spain, poses a threat to worldwide sales of Williams and Humbert's best-selling sherry, Dry Sack.

Since 1978 or 1979 the trade mark Dry Sack has been the property of a Channel Islands company, WH Trade Marks, which is controlled by the dispossessed Spanish millionaire Senor Jose Maria Ruiz-Mateos.

The Channel Islands company reportedly told the administrators of Williams and Humbert on May 27 last year to cease using trade mark within six weeks in Spain and within

four more weeks in the rest of the world.

The Williams and Humbert group is made up of a number of companies, some of which have been owned by the Spanish state since last February's nationalization.

A similar order on behalf of another Channel Islands company, ZRM Trade Marks, was sent to the state-administered Zule Ruiz-Mateos bodega in Jerez, barring further use of the trade mark Gran Duque de Alba. This name is used for the top brandy from the Ruiz-Mateos family winery which is now state property.

Both Channel Islands companies are believed to be controlled by the man who founded and ruled the Rumasa holding company until it was expropriated, Senor Jose Maria Ruiz-Mateos.

The Dry Sack brand name was sold by Williams and Humbert, at that time controlled by Rumasa, to WH Trade Marks for a reported 100,000 pesetas (£452). The brandy trade mark changed hands for £12.

Dry Sack sales last year reportedly amounted to about 1.5bn pesetas (£6.8m) and represented nearly one-third of Williams and Humbert's sherry sales.

The contracts under which Williams and Humbert and the Ruiz-Mateos bodega used the trade name each contained clauses which automatically cancelled the right to utilize them in the event that Rumasa, its affiliated companies or its holdings should be confiscated, expropriated, embargoed, alienated by obligation or threatened.

Sources in Madrid said the London Law firm of Herbert and Smith is expected to bring a counter suit in the High Court of Justice on behalf of the Spanish state, challenging the validity of the trade mark contracts.

15% of world's merchant shipping fleet is idle

By Michael Bailey, Transport Editor

Idle merchant shipping throughout the world reached 100m deadweight tons for the first time last month, representing 15 per cent of the world fleet.

Britain fared worse than average with 21 per cent of its fleet laid up: 40 tankers of 5.3 million tons (29 per cent of Britain's tanker tonnage) and 44 dry cargo ships of 1.37 million tons (10 per cent).

The latest global figures represent a 6 million-ton rise over the previous month, and the 22nd successive month in which the laid-up total has risen.

Disclosing this yesterday the General Council of British

Shipping (GCBS) also records a sharp rise in tramp rates last month but warns against reading too much into it.

Britain's proportionate idle fleet compares better with other leading maritime states than the crude percentage suggest. Liberia had 21 per cent of her fleet laid up last month, Greece 31 per cent, Norway a massive 41 per cent, Denmark 33 per cent, Sweden 26 per cent, France 18 per cent, Italy 20 per cent, and Spain 12 per cent.

The world total comprises 459 tankers totalling 73 million tons, (23 per cent of the total) and 1,281 dry cargo ships totalling 26 million tons (seven per cent).

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solving problems no matter where they may arise; simply because we're used to dealing with them daily.

And the sheer range of services we can provide (including round-the-world foreign exchange dealing in 55 currencies through 18 locations, merchant banking in eight financial centres, Eurocurrency lending, trade and project finance and local banking facilities) almost certainly means that you'd benefit substantially from a link with Standard Chartered.

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Direct banking, worldwide

UNITED STATES DISTRICT COURT NORTHERN DISTRICT OF CALIFORNIA

IN RE ITEL SECURITIES LITIGATION

THIS DOCUMENT RELATES TO:
ALL ACTIONS

Master File No.
C-78-1684 (PFA)

SUMMARY NOTICE OF
HEARING ON PROPOSED
SETTLEMENT OF
CLASS ACTIONS

TO: ALL PERSONS WHO PURCHASED ANY SECURITIES OF ITEL CORPORATION DURING THE PERIOD MAY 25, 1977 TO DECEMBER 5, 1979, INCLUSIVE.

YOU ARE HEREBY NOTIFIED Pursuant to Rule 23 of the Federal Rules of Civil Procedure and an order of the District Court that a hearing (the "Settlement Hearing") will be held on August 18, 1983 at 11:00 a.m. before the United States District Court for the Northern District of California in Courtroom 2, 450 Golden Gate Avenue, San Francisco, California 94102. The purpose of the Settlement Hearing is to determine whether the proposed settlement of the above class actions for the principal amount of forty million dollars (\$40,000,000) should be approved by the court as fair, reasonable and adequate, whether this action should be dismissed on the merits and with prejudice against Settlement Class Members as set forth in the Stipulation of Settlement, whether the proposed Plan of Allocation of the Settlement Proceeds should be approved as fair and reasonable and to pass on the reasonableness of the application(s) of plaintiffs' attorneys for the payment of fees, costs and interest, including fees of experts.

If you purchased any ITEL securities from May 25, 1977 to December 5, 1979, inclusive, you may be a member of the Certified Class, as broadened, and, if so, your rights may be affected by this litigation and the settlement of these actions. To share in the distribution of the Settlement Fund, you must file a Proof of Claim on or before September 30, 1983 establishing that you are entitled to recovery pursuant to the Stipulation of Settlement.

Any objections to the proposed settlement or the proposed Plan of Allocation must be filed no later than August 5, 1983 as provided in the detailed notice referred to below. Any objections to the requests for attorneys' fees and costs must be filed by August 8, 1983 as provided in the detailed notice referred to below.

If you are a member of the above class and have not yet received a detailed printed Settlement Notice or a Proof of Claim and Release form, you may obtain copies by calling (415) 777-3661 or writing the Clerk of the Court addressed to Post Office Box 26826, San Francisco, California 94126-8226.

Please do not contact the court or the Clerk's office for information except at the above address.

Dated: June 10, 1983
San Francisco, California

WILLIAM L. WHITTAKER
Clerk
United States District Court
Northern District of California

Ferguson Industrial Holdings PLC Record sales and pre-tax profits

	FEBRUARY 1983	FEBRUARY 1982
Sales	£119,202	£108,061
Trading Profit	4,818	4,145
Employees' Profit Sharing	530	398
Profit before Taxation	3,820	3,423
Earnings per Share	14.3p	11.3p
Dividend per Share	5.7p	5.7p
Net Assets per Share	98p	90p

Comments by the Chairman, Denis Vemon

* The achievement of record sales and profits was largely due to our two main divisions, Building Supplies and Printing and Packaging.

* A final dividend of 3.5p per share on the enlarged share capital is recommended, making a maintained total payment of 5.7p per share.

* Capital expenditure on new equipment in Printing and Packaging exceeded £2,750,000. Despite the disruption to production caused by the introduction of the new equipment, the return on the increased capital employed was maintained at 25 per cent.

* The new trading year has started well, particularly in our two main divisions.

For a copy of our latest accounts, please contact F.I.H. (Dept. T), Applaby Castle, Cumbray Caves S.S., Telephone: Applaby (0930) 51402

Ferguson Industrial Holdings



MARKET REPORT by Michael Clark

US buyers lift prices

ACCOUNT DAY: Dealings began, June 8. Dealings end, June 17. Contango Day, June 20. Settlement Day, June 27.

The Americans again came to the rescue of the London stock market yesterday just when it looked as though share prices were running out of steam.

Blue chips and oil companies gained the most from the latest onslaught from across the Atlantic as the combination of a weaker pound and dearer dollar offered some interesting bargains.

Glaxo recovered from early weakness to close 45p up at 880p, having been as low as 850p earlier. Beecham was another firm market, adding 8p 373p, while Bowater managed a further gain of 6p to 113p.

In oils British had a noteworthy performance, closing 10p higher at 215p—the price at which the shares were issued in the government sell-off last November. In their early trading, the shares hit a low of 42p as the City institutions shunned them. This will be good news for those small shareholders who sat patiently hoping to recoup their losses.

Also in oils, Shell rose 18p to 540p, BP 14p to 408p, Ultramar 17p to 604p and Burmah 4p to 156p.

As a result of the strong gains, the FT index continued to

advance towards 730, which market pundits predicted it would reach if the Conservatives were returned at the General Election.

In the event, the FT index ended the day 4.2 higher at 721.3, despite Rio Tinto, Zinc, the mining finance group, confirming the market's fears that it was in need of a cash injection. Yesterday it announced a rights issue to raise £198m.

Meanwhile, shares of Tricent

rol, which had been tipped as a possible takeover target for RTZ, tumbled 12p to 226p.

The scent of lower interest rates continued to act as a spur for Government securities, where gains of up to 5 1/2p were reported. But profits clipped 25p from most of the longer-dated issues by the close, leaving rises of 1 1/2p on the day.

On the Unlisted Securities Market, shares of Micro Focus, the group which writes the programmes for micro and mini computers rallied 7p to 358p after news that ICFC had sold 326,000 shares at about 330p. ICFC now owns just under 5 per cent of the equity.

Making its transfer from 163 to the USM, shares of National Leisure ended the day at 20p, after 22p. A recent newcomer to the USM, Clifer, the computer terminal group, ended the day unchanged at 165p compared with its striking

price of 115p when it came to market a few weeks ago.

First National Finance slipped 1p to 64p. Security Pacific, the Californian Bank which holds 30 per cent of Home Goyett, the stockbrokers, slipped 1p to 120p.

About 30 per cent of the shares in CPU Computers will be offered for sale by tender on the USM this week. Last year the group, which makes and distributes computer peripherals and micro computer systems, reported pre-tax profits of £200,000 on sales of £9.6m. This year it should make nearer £1.3m. Brokers to the issue are Grierson Grant.

denied that it had any intention of making a bid, in spite of rumours to the contrary. It talked to the group some years ago, a spokesman said, but had no plans to bid for FNFC or any other British financial institution.

In shipping, Ocean Transport fluctuated amid hopes of a sell-off of its controlling interests in its Far East shipping subsidiary, Sirtris Shipping. At one stage the shares hit 134p before closing at 124p, a net gain of 2p on the day. Newspaper shares were also buoyant, reflecting renewed hopes of an autumn flotation of Reuters, the news agency and electronic information service, in which Fleet Street's national newspapers hold an indirect 41 per cent stake. Lord Matthews's Fleet Holdings rose 3p to 89p, while Associated Newspapers closed 5p up at 333p.

Fears that Rowntree Mackintosh might be about to raise some cash wiped 4p from the shares at 218p. Last night, there were reports in the market that the group's brokers Cazenove had completed a large vendor placing to finance a deal.

John Brown yesterday confirmed the report in *The Times* that it was in talks with Hawker Siddeley by adding 3p to 29p, after 30p. The talks centre on Brown's gas turbine division, John Brown Engineering, believed to be valued at between £30m and £50m.

RECENT ISSUES		Classroom
Adam Leisure 10p (Oct 1980)	115	115
Battle Mountain 10p (Oct 1980)	115	115
Casino 10p (Oct 1980)	115	115
Chemical Market 25p (Oct 1980)	115	115
Chemical Market 25p (Nov 1980)	115	115
Cifer 10p (Oct 1980)	115	115
Coca Cola 10p (Oct 1980)	115	115
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A quiet-spoken contender for the top Fed job

High-priced economist who is a short-priced favourite

New York (NYT) - For a man who likes to talk in terms of probabilities and likelihoods, Mr Alan Greenspan is remarkably reticent about the odds of his succeeding Mr Paul Volcker as chairman of the US Federal Reserve Board.

"I would very much like to see him continue in the job, because I think he's doing very well," Mr Greenspan says. "As to whether I would do it if he is not reappointed, I frankly haven't confronted the question."

It is the areas he has confronted, from the recent reform of the social security system to his three-year stint as chairman of the Council of Economic Advisers under President Ford, that have made the business of being Alan Greenspan such a successful one.

He has been in the right place at the right time. A consistently conservative economist in an era when the prevailing economic and political winds were shifting from left of centre to somewhat right of centre.

"Of all the Republican economists since President Nixon took over, Alan was the only one, along with Arthur Burns, who combined in-depth knowledge of the economy with conservative values," says Mr Otto Eckstein, a member of the President's Council of Economic Advisers during the Johnson Administration, and now chairman of Data Resources. Alan has managed to avoid all the way-out positions. He's not a simple-minded supply-sider. He's not a simple-minded monetarist, he's an all-round conservative economist.

Mr Greenspan is 57 and one of America's leading and most sought-after economists. He can often be found on television or in Washington or in the most



GREENSPAN: Work is central to his life

powerful of corporate boardrooms offering his views on economic affairs, politics and the day's social issues.

The bespectacled, soft-spoken economist is almost everybody's first choice for the Fed job should Mr Volcker step aside. The only question is whether he is the president's choice, too.

Those who know him say they think he would take the job if asked, although several thought it would be hard for him to leave Townsend-Greenspan, the economic consulting firm he and the late Mr William Townsend founded in 1953.

Although Greenspan, who holds the vast majority of the stock in the privately held firm, will not discuss either its finances or its clientele, with nearly 200 clients from among the largest financial institutions and manufacturers in the nation.

Though he's looking for new, larger quarters, Mr Greenspan

says he is most comfortable not on television or at fashionable dinner parties, but at work in his New York office overlooking the tip of Manhattan and New York harbour.

Work is so central to his life that little else, except perhaps baroque music, seems to engage him. He is deliberately understated, and although his candour and calm give him a distinct charm, even his friends say he is somewhat lacking in style, charisma, and sense of humour.

"He's honest and decent and just about the brightest guy I've ever met," says Robert Kaveah, a New York University economics professor who met Mr Greenspan when both were students in the late 1940s, and has been a friend since. "He's not given to strong emotions. I don't think I've ever seen him get really angry. I consider him a very good friend but sometimes you just want to say, 'Damn it, Alan, tell me a dirty

joke, or at least listen to one."

Townsend-Greenspan's fees range from as low as \$15,000 a year to more than \$200,000. Clients paying the lower fees never see Mr Greenspan, but get a steady stream of mailings, rife with data and charts predicting, for example, how much will be spent on flowers, seed and potted plants next year, what the prime rate will be in the third quarter of 1983, and how fast the nation's motor car production will grow over the next decade.

For higher fees, his clients can but into a wide array of computerized services, data banks and consultations with the senior economists - even Mr Greenspan himself. His time is the firm's most scarce resource and, as a consequence, a high-priced commodity.

Client lunches with him can run to \$2,000 - a speech for non-clients \$10,000.

The firm's own forecasts are based on an econometric model to which clients can buy computer access through Econolyst.

Townsend-Greenspan's joint venture with ADP Network Services, a division of Automated Data Processing, the New Jersey-based company run until last year by Mr Frank Lautenberg, a senator Mr Greenspan is on the board of ADP, Alcoa, Mobil, Morgan Guaranty and General Foods.

He was in the economic forecasting business before the computers came along, and those who have worked with him say he has an uncanny grasp of the numbers and the often-subtle relations between them.

"Alan is an astonishingly capable mathematician," says Mr David Munro, who formerly worked under Mr Greenspan at the Council of Economic Advisers and now, as an economist at General Motors, is a Townsend-Greenspan client. "He can lay out complicated algebraic schemes in his head. He got his feet on the ground professionally at a time when you had to know, intimately, what data was produced, who it, and what it meant."

Mr Greenspan first emerged in the Nixon Administration, when he went to Washington as chairman of the Council of Economic Advisers. It was his former teacher Mr Arthur Burns, then chairman of the Federal Reserve Board, who suggested him for the job.

"What you needed at the CEA was a good business analyst who understood economic trends," says Mr Burns, now US ambassador to Germany. "I thought he was unique in that respect."

Mr Greenspan says he felt a bit uncomfortable as head of the CEA because it took him from hands-on numbers work into policy and politics.

But the transition seemed to work. Once ensconced in Washington, Mr Greenspan quickly became Mr Gerald Ford's most important economic adviser.

Though he returned to New York six years ago, Mr Greenspan has remained active in Washington, helping draft an economic agenda speech for the then presidential candidate Mr Ronald Reagan and serving, today, on bodies like the Foreign Intelligence Advisory Board, which counsels the executive branch on intelligence procedures.

He is loyal to the Reagan White House, well known to Mr Jim Baker, Mr Ed Meese, and Mr Mike Deaver, the president's top aides, and was therefore a logical candidate to head the commission President Reagan established in late 1981 to hammer out a plan for saving the social security system.

It might seem contradictory for Mr Greenspan to take on such a task. After all, he has for decades been a follower of the resolutely free-market, objectivist philosophy outlined by the writer Ayn Rand.

Greenspan says he was deeply influenced by Miss Rand's commitment to laissez-faire economics, a minimum of government regulation and the view that society would benefit if everyone acted out of rational selfishness rather than altruism.

Despite Mr Greenspan's theoretical convictions, he is not a free-market fanatic. "Do I like the present social security system? No," he says. "If you asked me whether it would be necessary in the ideal society, I'd say no. Our type of economy is far removed from where I would like to see it, but you have to be careful about moving from one type of society to another. I am not unaware of the technical problems of transition."

Boost for Trilogy's new semiconductor venture

Sperry takes a bite of the wafer

THE WEEK
Clive Cookson

Trilogy Systems Corporation, the most ambitious computer start-up so far, has received a psychological and financial boost from one of the industry's established giants, Sperry.

A week after Trilogy unveiled its new semiconductor technology, based on silicon wafers containing several million electronic components, Sperry said it would pay \$42m for a 15 per cent equity stake in the venture and an option to use Trilogy technology.

The Sperry deal and the enthusiastic response to Trilogy's novel "wafer scale integration" have allayed rumours earlier this year that the company was running into serious financial and technical difficulties. It is true, however, that first deliveries of the ultra-powerful Trilogy computers have been put back at least six months (early 1985 is now the likely launch date) and costs are running ahead of budget.

Trilogy has raised about \$230m and total funding is likely to reach \$300m or even

\$400m before any products are shipped. That would give it a clear record as the capitalist world's most expensive new venture.

Gene and Carl Amdahl, the famous father-and-son team of computer designers, founded Trilogy with the intention of producing the fastest IBM-compatible computers on the market. Their first machine is expected to offer 32 million instructions per second (mips) for about \$4m - at least twice as many mips per dollar as today's best IBM mainframes.

Of course, Trilogy is racing towards a moving target as IBM and the other mainframe manufacturers are pushing ahead with their own research. But many analysts believe Trilogy will be a couple of years ahead if it can deliver what it promises in

1985. Shipments from the manufacturing plant that Trilogy is building in Ireland could then reach \$1 billion as soon as 1987.

Trilogy etches its circuitry on to wafers six centimetres square, instead of the half-penny-sized chips used by existing manufacturers. The computers will require 30 to 40 water-cooled wafers - 100 times fewer than the number of chips in today's large mainframes. No one else has attempted electronic integration on that scale, despite the advantages of speed and low costs, because of the difficulty in producing such a large area of silicon without defect.

The Amdahls claim to have solved that problem by making their wafers self-diagnosing and self-repairing. Special diagnostic circuits will detect any failure and divert signals to spare ("redundant") circuits etched on to each wafer.

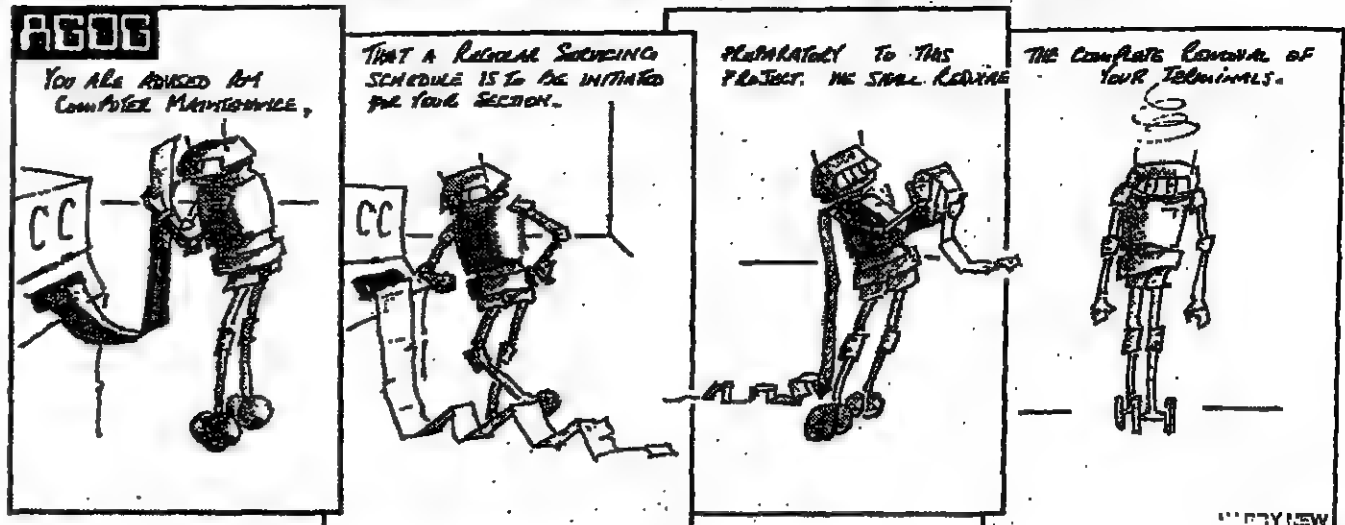
Although Trilogy has not yet tested a full-scale prototype wafer, Sperry chief executive



Gerald Probst

Gerald Probst has no doubts. "We believe Trilogy's innovative technology is a major breakthrough in levels of circuit integration and redundancy that promise the utmost in reliability," he said.

If that assessment is correct, Trilogy could make almost as much by licensing its semiconductor technology as by selling computers.



Scramble of robotic rodents

COMPUTER BRIEFING

by the Barking-based Microcomputer Products International.

American technologists have done it again: they've invented the silicon chip. No, not the thing used in a million microcomputers, but a version you can eat. It's a variation on that old US favourite, the chocolate chip cookie, writes Roger Woolnough.

This edible silicon chip made its first appearance last month at the Semicon/West show in California, where it scored by being "rather more palatable than the other exhibits."

Though the chocolate chip "wafer" may be short on innovation, it's long on marketing, mainly of a punning nature. "A stand-alone snack that's mug-compatible," runs the advertising. "Take some time to your loved ones - it's your best bite."

Triumph Adler will be launching their new personal computer in



October at the IBS exhibition in Birmingham. First glimpsed at the Hannover fair, the micro, with 64K RAM and 32K ROM, is CPM compatible, offers colour and, by the use of mini-diskettes, can be expanded to 320K. The makers, who hope to sell at around £350, are aiming at the small office and home users.

Coming events

- OVERSEAS**
- Mini-Computer Show for Office, Home, Hobby, Exhibition Hall, Cologne, June 23-26.
 - International Micro Computer Exhibition, Kuala Lumpur, August 2-5.
 - National Computer Business & Office Systems, Auckland, August 16-19.
 - Australian Computer Exhibition, Melbourne, September 13-16.
 - International Peripheral Equipment & Software Exposition, Moscone Centre, Anaheim, US, September 13-15.
- UK**
- Computer Fair, Earls Court, London, June 16-19.
 - Computer Open Day Exhibition, Holiday Inn, London, June 16.
 - Fyde Computer Show, Winter Gardens, Blackpool, June 17-19.
 - Compex North 83, Belle Vue, Manchester, June 21-23.
 - Leeds Software Fair, John Taylor Teacher's Centre, Leeds, June 21.
 - BBC Micro User Show, Renold Building, UMIST, Manchester, June 24-26.
 - Expo Europe '83, Barbican Centre, London, July 6-8.
 - Malvern Microcomputer Fair, Winter Gardens, Malvern, Worcestershire, July 2.
 - Micro Trade '83, Barbican Centre, London, July 6-8.
 - IBM Users' Conference & Exhibition, Wembley Conference Centre, London July 12-14.
 - Acorn User Exhibition, Comrad International Hotel, London, August 25-28.

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NOTICE OF REDEMPTION

To the Holders of

Government of New Zealand

Twenty Year 5% Bonds due July 1, 1985

NOTICE IS HEREBY GIVEN that, pursuant to the provisions of the Bonds of the above-described issue, Morgan Guaranty Trust Company of New York, as Fiscal Agent, has drawn by lot for redemption on July 1, 1983 at 100% of the principal amount thereof through operation of the Sinking Fund, \$1,028,000 principal amount of said Twenty Year 5% Bonds due July 1, 1985 bearing the following distinctive numbers:

OUTSTANDING COUPON BONDS OF \$1,000 EACH BEARING NUMBERS ENDING IN ANY OF THE FOLLOWING TWO DIGITS:

20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99
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ALSO COUPON BONDS OF \$1,000 EACH BEARING THE FOLLOWING NUMBERS:

FULLY REGISTERED BONDS WITHOUT COUPONS

Number	Principal Amount to be Redeemed	Number	Principal Amount to be Redeemed
2981	\$100,000	2132	\$100,000
2982	100,000	2133	100,000
2983	100,000	2134	100,000

On July 1, 1983, the Bonds, or portions thereof, designated above will become due and payable at the principal amount thereof in such coin or currency of the United States of America as is legal tender for the payment thereof in public and private debts, and will be paid upon surrender thereof at the corporate trust office of Morgan Guaranty Trust Company of New York, 30 West Broadway, New York, New York 10015, or at the option of the bearer or registered holder but subject to any laws and regulations applicable thereto in the country of any of the following offices, at the offices of Morgan Guaranty Trust Company of New York in Antwerp, Brussels, Frankfurt, London or Paris, or at the office of Baring Brothers & Co., Limited in London.

Coupon Bonds surrendered for redemption should have attached all unexpired coupons appurtenant thereto. Coupons due July 1, 1983 should be detached and collected in the usual manner.

Upon surrender of a fully registered Bond for partial redemption, there will be issued a new coupon Bond or Bonds or fully registered Bond or Bonds for the unredeemed portion of such fully registered Bond surrendered.

From and after July 1, 1983 interest shall cease to accrue on the Bonds, or portions thereof, herein designated for redemption.

GOVERNMENT OF NEW ZEALAND

June 1, 1983

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WORLD CUP CRICKET: PAKISTAN UNBALANCED BY IMRAN INJURY

England take a big step nearer final

By John Woodcock
Cricket Correspondent

LORDS: England (4pts) beat Pakistan by eight wickets.

England took another confident step towards the semi-finals of the Prudential World Cup when they beat Pakistan yesterday. They had the better of the pitch, there being plenty of life in it early on, and made light work of scoring the 194 they needed to win. Having chosen to bat when they would have done better to field, Pakistan had a bad day.

There was a full house, a rare occurrence on a Monday, whether at Lord's or anywhere else, and the weather lasted just long enough for the match to be finished. Pakistan's one major misfortune was an injury to Imran, which inhibited his batting and prevented him from taking the field. On yesterday's showing he is more than half their side. In his absence they had a multitude of captains.

England bowled as well as for a long time. They were fast, straight, and sometimes fiery. Full marks to him. They all did well, in fact. Marks plodded up from third man, bowled his disarming off breaks, and plodded back again. Botham

took two good wickets, and Dilley worked up a useful pace. By comparison, Pakistan's attack was a haphazard affair. Without Imran they had nothing in the way of speed and having to bowl at two left-handers, Gower and Fowler, disconcerted Qadir. Even the great O'Reilly never much cared for bowling to Paynter and Leyland. Pakistan's fielding, too, was nothing like as good as England's.

England played the same side that had beaten New Zealand and Sri Lanka. They had, as one selector put it, an "awkward" decision, waiting not to disturb a winning side, yet with three players - Randall, Jessy and Cowans - in their squad of 14 who have still to be given a game. Had England won the toss they would, I think, have put Pakistan in. If so, they would have been justified. It was a good pitch to bowl on, especially before lunch.

After seven overs Pakistan were 28 for no wicket and going well. They must have begun to worry when Imran (he the Lord's Test match a year ago) was quite unable to do as he wanted. England's bowling was backed up by some

splendid fielding. The only catch they put down was to Gould at the wicket, Imran, who was three at the time, surviving a fast chance of Dilley. Almost immediately, Imran's runner ran him out.

In the eleventh over Mohsin, trying to break free, misbawled Willis to mid-on, where Tavaré held a good, tumbling catch. To keep Zaheer away from the new ball, Mansoor came in next, which was more than he could cope with. Javed, having hit Allott for successive fours in the previous over, was caught at the wicket off a very good one from Botham which went up the hill.

By lunch, Muddassar was also out, caught at the wicket down the leg side, hooking at Allott.

If Pakistan were to have any sort of a chance now, Zaheer, Wasim Raja or Imran would have to make a score in the event, neither Imran, who took 11 overs over seven runs (an indication not least of his own determination), nor Wasim Raja did so.

When Imran, having been hit on the foot, sent for a runner, Javed appeared, which must have encouraged England. Seeing and wanting two runs to everyone else's one, Javed is a notoriously hardy batsman. Yesterday, although there was a

second run there, Zaheer sent him back; too late even for Javed to make his ground. Imran's sideways glance as he and his runner returned to the pavilion together was full of expression.

When Qadir was also run out - he too, was sent back by Zaheer - and Sarfaraz was well caught and bowled by Botham, following through, Pakistan were 154 for eight with seven others left. Zaheer, though, was by now finding chances to play his own favourite stroke - through the covers and wide of mid-on - and once he went down the pitch to Botham, hitting him over extra cover for six. In their last twenty overs Pakistan scored 106, enough, if no more, to see that they made a match of it.

England batted more than well enough. After Tavaré had been before in the ninth over, Fowler and Gower added 78 in 22 overs (there was no need to hurry) and then Fowler and Lamb took the rest, with 9.4 overs to spare. Gower, being in prime form, played with ease and style until he flicked Mansoor low to short mid-wicket, where Sarfaraz held a diving catch.

Twice, after that, Pakistan had a chance to stay in the

game. First, Lamb, as soon as he came in, survived a wide must have been a perilously close call for leg-before to Qadir's goody, and then, when he was 22, Sarfaraz dropped him.

Fowler scored 78 not out, precociously and in the end quite impressively, while Lamb pummelled some fairly friendly bowling. The final of the competition is on Saturday week, and England, with good reason, can have their eye on it.

Pakistan

Mohsin Khan c Tavaré b Willis	3
Muddassar Nasser c Gould b Allott	28
Mansoor Akram c Gould b Willis	14
Imran Khan c Botham b Sarfaraz	7
Zaheer Abbas not out	7
Imran Khan run out	7
Wasim Raja b Botham b Willis	11
Qadir Khan not out	19
Sarfaraz Nawaz c and b Botham	19
Extras (b, lb, w, nb, r)	10
Total (50 overs)	183

FALL OF WICKETS: 1-28, 2-33, 3-48, 4-67, 5-84, 6-102, 7-118, 8-124, 9-134, 10-144, 11-154, 12-164, 13-174, 14-183.

England

G Fowler, not out	78
L Lamb, not out	6
D Gower c Sarfaraz b Akbar	48
A J Lamb not out	48
Extras (b, lb, w, nb, r)	10
Total (50 overs)	190

FALL OF WICKETS: 1-15, 2-28, 3-33, 4-44, 5-52, 6-67, 7-78, 8-84, 9-94, 10-104, 11-114, 12-124, 13-134, 14-144, 15-154, 16-164, 17-174, 18-183, 19-194, 20-204, 21-214, 22-224, 23-234, 24-244, 25-254, 26-264, 27-274, 28-284, 29-294, 30-304, 31-314, 32-324, 33-334, 34-344, 35-354, 36-364, 37-374, 38-384, 39-394, 40-404, 41-414, 42-424, 43-434, 44-444, 45-454, 46-464, 47-474, 48-484, 49-494, 50-504.



Two of a kind put Surrey in a spin

By Peter Marston

THE OVAL: Surrey, with 8 second innings wickets in hand are seven runs behind Middlesex.

Splendid spin bowling by Edmonds and Emburey led to Surrey following on 158 runs behind yesterday. But, at the second time of asking, Surrey countered effectively with Smith (63) and Lynch (59) putting on 128 runs for the third wicket before the close.

It was bright and sunny in the morning when Clinton and Monkhouse, Saturday's night watchman, walked out with Surrey two for 0 and a long way behind. Pocock's success in a long bowl on the first day when a buff strip not far from the end of the table on the gasholder's side of the ground had yielded three wickets, quite obviously had interested Emburey, the acting captain and Edmonds, and both bowlers were quickly into the fray.

In fact, for the rest of the morning and for a short period after lunch, Middlesex's performance could have been aptly and accurately labelled "the Emburey and Edmonds show". Each caught off the other's bowling and claimed an equal share in eight wickets. With a switch in ends now and again, the batsmen on the batsmen's apprehension, these two sent down 62 leasing overs.

Surrey were bewildered and, as often as not playing and missing, eight wickets fell in a gradual but steady descent for 154 runs. That left the last three, Thomas, Clarke, and Pocock with the unenviable task of preventing the Prince of Wales' ruffled feathers by hitting off the bowling, thereby avoiding the probability of being invited to follow on. In the matter of his and misses, Monkhouse had been by some distance more successful than the rest.

Had there been a suit of shining armour hidden in Surrey's close, then Knight ought to have added up wearing it, for it transpired that he alone possessed the skill and technique to survive. From start to time, however, even the salliant captain was beaten.

SURREY: First Innings

G Monkhouse c Emburey b Edmonds	26
G Clarke c Emburey b Edmonds	7
A R Smith c Emburey b Edmonds	14
D J Knight c Emburey b Edmonds	4
R D Clarke c Emburey b Edmonds	4
A R Smith c Emburey b Edmonds	4
G Monkhouse c Emburey b Edmonds	4
G Clarke c Emburey b Edmonds	4
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Law Report June 14 1983

Inland Revenue has
six years
to assess oil tax

Amoco (UK) Exploration Co
Inland Revenue Commissioners
Before Mr Justice Walton
(Judgment delivered May 27)

For the purpose of quantifying the amount of petroleum revenue tax payable on profits from oil won by participants in the North Sea, the Inland Revenue Act 1975 did not require the Inland Revenue to make assessments forthwith upon a return being submitted to it. Such assessments could be made at any time within a six-year period dating from the end of a chargeable period. Accordingly, the Act did not limit the expenditure that was allowed against a participant's oil receipts to such expenditure as would have been allowed had an assessment been made forthwith following a return by that participant.

Mr Justice Walton so held in a reserved judgment in the Chancery Division dismissing an appeal by taxpayer company, Amoco (UK) Exploration Co, from a decision of the special commissioners dismissing an appeal against a determination of the Board of Inland Revenue in relation to petroleum revenue tax for the chargeable period ended December 31, 1976, and against assessments to the tax for subsequent chargeable periods up to the period ended December 31, 1980.

Mr Stewart Bates, QC, Mr J. E. Holroyd Pearce, QC and Mr Alastair Wilson for the taxpayer company; Mr Charles Potter, QC and Mr Robert Carruthers for the Crown.

MR JUSTICE WALTON said that the case was the first concerning the Oil Taxation Act 1975 to come before the High Court.

The point at issue was whether, as the taxpayer company contended, assessments on profits, taxable under that Act had to be made forthwith on a return being made by the taxpayer company, containing figures which were agreed by the Board, or whether, as the Crown contended, such assessments could be made within the usual six-year period dating from the end of the chargeable period.

It was not obvious why the timing should make any difference to the liability of the taxpayer company, and indeed the air of uncertainty was scarcely dispensed when one learnt that the assessments under appeal had resulted in no liability at all.

However, such was the structure of the 1975 Act that there was no doubt that there was a real point in issue between the parties, and that it would be to the taxpayer company's advantage to have nil assessments reached by a road rather different from that traversed by the Crown.

Accepting then that the precise timing of the assessment might be crucial, the first and important argument by the taxpayer company that should be dealt with was the submission that to construe the relevant legislation in a manner which afforded the Crown an opportunity, by advancing or delaying the timing of the assessment, to affect the liability to tax, would be to hold that Parliament had conferred on the Revenue a discretion affecting the quantum of a taxpayer's liability, see *Yestey v IRC* [1980] AC 1148.

That argument was less than convincing. It did not appear to be a proper use of language to say if an act had to be done within a certain period, that the person who had to do it had thereby conferred upon him a discretion.

What could properly be said was that his otherwise unlimited freedom of action was fettered by being made subject to a time limit. However, it did not make any difference that the amount of tax might vary according to the date on which an assessment was made. The Revenue had no discretion as to the amount of tax chargeable; it was merely a question of what matters had to be taken into consideration in making an assessment. It was true that the Revenue had a choice as to timing, but choice was emphatically not the same thing as discretion.

The case depended solely on the construction of the relevant provisions in the 1975 Act. The difficulty arose because of the interplay of three separate matters: positive amounts (receipts) negative amounts (allowable expenditure) and oil allowance.

For the purposes of the tax, the assessable profit or allowable loss accruing to a participant in any chargeable period was the difference between the sum of the positive amounts and the negative amounts.

Section 8 provided for an oil allowance for each six-month chargeable period that was to be divided between the participants in

an oil field in shares proportionate to their share of the oil won during the period. It was comparable with the "personal allowance" available to individuals in relation to income tax.

Section 2 dealt extensively with what was to be included in the positive and negative amounts. The amounts in question fell under section 2(9)(b).

It described what might be debited to a participant as his share (i) any expenditure allowable under section 3 or 4 of this Act for the field which has been allowed as such a claim before the Board have made an assessment to tax or a determination on or in relation to "him" for the period in respect of the field.

That presented the kernel of the problem. If the Board had made such a determination before the expenditure in question was taken into account, then, as in the present case, the situation would be that the taxpayer company might have made a profit which could be reduced by the application of the oil allowance, leaving the whole of the expenditure to be carried forward.

Whereas if (as in fact happened) the Board delayed making the assessments until after it had determined the expenditure, the expenditure would wipe out the profit, leaving the whole of the initial tax position, but the participant would lose the benefit of the oil allowance in that year, since "there would be no profits against which to set it, and the balance of expenditure available for carry forward would be that much smaller."

One would have expected that expenditure in any particular period would have been set off against profits in that same period, any excess being carried forward to future periods. But the Act did not so provide. The set off was in respect of the six-year period, as had been allowed before the assessment was made.

What happened in the present case? The end of the taxpayer company's first chargeable period was December 31, 1976. It made its return on February 25, 1977. The end of its second chargeable period was June 30, 1977. It made the return on August 5, 1977. The end of the third chargeable period was December 31, 1977. It made its return on February 21, 1978.

Then, for the first time, an expenditure claim under section 5 was submitted on April 17, 1978, for the period ending June 30, 1977. That was allowed by the Board on November 9, 1978. It was followed by the determination of the Board in respect of the taxpayer company's returns for the above three chargeable periods on December 11, 1978.

Naturally, enough, since the determination was made after the allowance of the Schedule 5 claim in respect of the first claim period by the Board, in making its determination the Board took the figures of allowable expenditure into account when so doing.

The whole of the taxpayer company's case rested on provisions in the 1975 Act. 2(a) of that Act, submitted by paragraph 10(1) of that Schedule the Board "shall make the assessment as soon as it appears to it that an assessable profit had accrued to a participant in a chargeable period."

Mr Bates, an assessment had to be made by the Board forthwith. However, it was to be noted that paragraph 10(1) of the Schedule provided that section 24 of the Taxes Management Act 1970 (applying the six-year time limit for assessments) was to apply to petroleum revenue tax as it applied to other taxes. Mr Bates had dismissed section 24 as being merely in the nature of a long stop.

If the taxpayer company's submissions were correct, then if the Board failed - as it presumably had - to make the assessments as soon as it was satisfied as to the assessable profit, the taxpayer company would be entitled to a long stop. The special commissioners, finding that there was nothing in the Act which they could construe as setting a time limit within which the Revenue was to discharge its duty of making an assessment, had missed the taxpayer company's appeal. Their decision on the points put to them was unsatisfactory and the appeal had to be dismissed accordingly.

Solicitors: Ashurst Morris & Crisp & Co., Solicitors of Inland Revenue.

Showroom not
in breach
of Sunday law

Bury Metropolitan Borough
Council v Law
Same v Cornburn

Occupiers of a shop did not serve customers on a Sunday within the meaning of the Shops Act 1950 where they merely opened for public view a showroom containing examples of kitchen furniture which could be custom built to order, and recorded names and addresses of potential customers in order to make a subsequent visit to their homes to take measurements and give estimates.

Mr Justice Taylor, with whom Lord Justice Griffiths agreed in the Queen's Bench Divisional Court on June 8, dismissed an appeal by case stated by the local authority against the dismissal by the Bury Council on November 23, 1982 of an information under sections 47 and 59 of the Shops Act 1950.

HIS LORDSHIP said that the Act required shops to be closed for the serving of customers on Sunday, not closed on Sunday. If the object of Parliament had been to prevent places like that should have been closed in all circumstances on Sundays they would have said so: see *Manchester City Council v Campland Ltd* (DC) [1975] 1 All ER 1000 (March 22, 1975) per Lord Justice Ormrod.

Clearly it was legitimate for shops to be open for some purposes, and the justices had been justified in finding that this shop had not been open for the serving of customers. The taking of names and addresses was no more than an undertaking to serve customers at some future time.

Legal aid in
dismissal
of appeals

Sir John Donaldson, Master of
the Rolls, sitting in the Court of
Appeal on June 7 with Lord Justice
Ackner and Lord Justice Forster

hearing appeals against the dismissal of appeals by the Supreme Court as amended, said that the appropriate course, where one party was legally aided and an appeal was made, was for the legally aided party to pay for the appeal by way of a contribution to the costs of the appeal. There was no reason for further costs to be incurred merely to get an order for legal aid taxation.

When solicitors
can appear
in High Court

Shaw v Shaw

Mr Justice Lane, sitting in the Family Division on June 8, said that on hearing a judgment summons under the Debtors Act 1869 solicitors had the right of audience in the High Court. It was unnecessary to decide whether the right derived from statute but the exercise was certainly usage in the Probate, Admiralty and Divorce Division in 1942 and had been so recorded in the fourth edition of *Reynolds on Divorce* and in every edition since.

Davies & Newman
Holdings PLC



SOLICITOR

Davies & Newman Holdings P.L.C. Group is engaged in shipbroking, airline operations, airline engineering, travel and oil-related activities. This Company has a vacancy for a solicitor to handle commercial matters involving aviation, contracts and advisory work. It will be necessary to develop working relationships with senior line management and some travel can be expected.

The post is suitable for a solicitor aged around 30 with at least three years' post-qualification experience, gained with a commercially orientated practice. A salary in the range of £10,000 - £12,000 will be paid, and airline travel concessions are available. The location is the City.

Please write giving details of age, qualifications, experience and current salary to: Mr P. Finnegan, Personnel Manager, Davies & Newman Holdings P.L.C., Bilbao House, 36-38 New Broad Street, London, EC2M 1NH.

Lawyer

Oil Industry

Elf UK Limited, the British subsidiary of one of Europe's leading oil companies, is extensively involved in exploration and production activities in the North Sea.

Following a number of recent acquisitions both onshore and offshore and the decision to develop the Alwyn North Field at a cost of more than £1,000m, Elf now has a requirement for a young energetic Lawyer to assist the legal and joint ventures adviser.

Candidates will ideally have 2-3 years experience since admission and possess some knowledge of petroleum exploration joint ventures. The ability to work in a small close knit team is essential.

We offer a competitive salary together with a comprehensive range of benefits including bonus, London weighting allowance, luncheon vouchers and interest-free season ticket loan.

Please write giving details of qualifications, experience, age and current salary to: Mrs Sonia Gordon, Personnel Officer, Elf UK Limited, Knightsbridge House, 137 Knightsbridge, London, SW7 1RZ.



COMMERCIAL/COMPANY LAW

We are West Midlands Solicitors with three offices in an agricultural/industrial area. We need to find an energetic solicitor knowledgeable of and with some experience in company law and practice to provide balance and full expansion potential to our Commercial team. The present varied background of the Commercial workload provides opportunities for growth and for an interesting career for the successful candidate. Applications with full C.V. should be sent to the Partnership Secretary, Ivens & Morton, Carlton House, Kidderminster, Worcs. DY10 1BA.

SHIPPING SOLICITOR
BENTLEYS, STOKES & LOWLESS

are seeking a Solicitor with with about 2 years' Litigation Experience since admission. The successful applicant will deal with Charter Parties, Bills of Lading and Contracts of Marine Insurance, frequently involving a foreign element. Some foreign travel will be involved when experience has been gained.

Applicants should write giving full particulars to: A. C. Poynter, Bentleys Stokes & Lowless, Canal House, 58 Mark Lane, London EC3R 7NL.

Fenwick Elliott & Co.
COMPANY/COMMERCIAL
PARTNER

This young 5-partner firm is now looking for a Solicitor to join the partnership to take over and run our company and commercial work.

Applications, with curriculum vitae to: Roger Doxton, Fenwick Elliott & Co., 7 Arundel Street, London, WC2R 3DL. Tel: 01-836 6371.

LONDON, SW17

Wanted Probate/Conveyancing Assistant. Newly admitted or experienced, for busy friendly office. Salary commensurate with experience.

Tel: 073 0115. Refs: WTM or DAL.

Mid Devon District Council. CHIEF EXECUTIVE'S DEPARTMENT. SOLICITOR'S ARTICLED CLERK.

Training Grade - £2,844 p.a. (plus £1,000 p.a. for expenses). The minimum commensurate salary for a new graduate with a law degree and a wide variety of legal work in a busy District Council office.

Applications are invited for the position of Articled Clerk. This is an ideal opportunity for a law graduate with a law degree and a wide variety of legal work in a busy District Council office.

The minimum commensurate salary for a new graduate with a law degree and a wide variety of legal work in a busy District Council office.

Applications are invited for the position of Articled Clerk. This is an ideal opportunity for a law graduate with a law degree and a wide variety of legal work in a busy District Council office.

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COMPANY SEC Legal Advice Sec by Post Office. £15,000. SENIOR COMMERCIAL. £15,000. SENIOR COMMERCIAL. £15,000. SENIOR COMMERCIAL. £15,000.

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CHAMBERS & PARTNERS. 72 Long Lane, London E.C.1. 606 9371.

FLEET STREET FIRM
REQUIRE

YOUNG LITIGATION SOLICITOR. With some post-admission experience for mainly contract commercial work. Apply with C.V. to Box 0291 H The Times.

Commercial
Lawyer

Central London c.£17,000

Our client, a major British foods manufacturer and a famous household name with interests throughout the world, is looking for a well qualified Lawyer to play a key role in a demanding stimulating environment.

Reporting to the Group's Legal Adviser, the successful applicant will advise senior management and the board on a broad range of corporate and commercial issues. A City background could, therefore, be useful. He or she is likely to be in the 28-35 age range.

Please write with full c.v. to Confidential Reply Service, Ref. ASC 8742, Austin Knight Limited, London, W1A 1DS.

Applications are forwarded to the client concerned, therefore companies in which you are not interested should be listed in a covering letter to the Confidential Reply Supervisor.

Legal
Assistant

A major Clearing Bank requires a Barrister or Solicitor, probably under 30, with some years' practical experience, for general work in its Legal Department. The work covers a wide spectrum.

Any experience of banking law, company law, litigation or consumer credit law would be an advantage.

The commencing salary offered is in the range £10,000-£12,500. There is a staff profit sharing scheme as well as the usual fringe benefits associated with a career in banking.

Apply, in confidence, with full c.v., to Box 0045H, The Times, 200 Gray's Inn Road, London W.C.1.

HONG KONG

COMPANY & COMMERCIAL

Substantial firm wish to interview in London on 27th June solicitors with one to three years company and commercial experience. This leading practice offers stimulating work of City quality and provide a good competitive remuneration package.

If you are interested in working in Hong Kong contact Ashley Batts for further details. Tel: 01-405 6352, Raine Smith Limited, 26-28 Bedford Row, London WC1R 4HE. Telex: 884064.

Reuter Simkin

AUSTIN & CARNLEY of Luton
and Dunstable, Solicitors, have the
following vacancies:-

1. Dunstable Office - Assistant Solicitor for Conveyancing, mainly domestic with some Commercial work involved.
2. Dunstable Office - Assistant Solicitor for general Litigation, principally Matrimonial and Criminal.
3. Luton Office - Assistant Solicitor for general Litigation including Criminal, Employment and Matrimonial Law with some Personal Injury and general Civil Litigation.
4. Dunstable Office - Articled Clerk, August Finalist considered.

Salaries in each case commensurate with experience. Apply to P. H. M. Shanks - Dunstable 605771. W. M. Fudge - Luton 26382.

Legal Advisor

An International Shipowners Association based in the North East requires a qualified lawyer (preferably under 30) to handle the full range of disputes covered by the Defence Department.

Experience in the field of shipping or commercial law is desirable but not essential. Salary commensurate with qualifications and experience. Please write with full C.V. to: Mr J. M. T. BRAY

Sunderland Steamship Protection & Indemnity Association, Travistock House, Borough Road, Sunderland, Tyne and Wear, SR1 1TH. 0783 653321.

KINGSTON POLYTECHNIC

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LECTURER II IN LAW

Applications are invited for a lecturer in Commercial Law subjects as a fixed term contract of 1 year from September 1983. Salary range lecturer II £7,500 - £12,183 inclusive of London Allowance.

Details and application forms to be returned by 1st July from Academic Registry, Dept AD, Kingston Polytechnic, Penrhyn Road, Kingston-upon-Thames, Telephone 01-849 1326.

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£12,000 p.a.

Domestic and probate 0.8 years post-qual. Excellent prospects for partnership in established firm. 0770. Luton and Dunstable, Bedfordshire.

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Commercial, A/L, 100% post-qual. Senior post. Large City firm. Bedfordshire. 0770. Luton and Dunstable, Bedfordshire.

SOLICITORS

£12,000 p.a.

Senior post. Large City firm. Bedfordshire. 0770. Luton and Dunstable, Bedfordshire.

LITIGATION

£12,000 p.a.

Senior post. Large City firm. Bedfordshire. 0770. Luton and Dunstable, Bedfordshire.

THE LAW SOCIETY

Legal Aid-Solicitors

London £13,363-£19,932

Birmingham £12,088-£18,657

Applications are invited from Solicitors for vacancies in London and Birmingham Legal Aid Offices at a salary within the above ranges depending on age and experience. These are senior positions which call for a mature Solicitor with wide experience of litigation, a capacity for hard work, the ability to exercise sound judgment and a willingness to accept responsibility. The successful applicants will probably be in the 33-45 age bracket, and will be above average lawyers with at least 6-8 years experience of litigation in private practice. Experience of Legal Aid in practice and as a member of a Legal Aid Committee would be useful.

The terms of service include a contributory superannuation scheme with dependants provision, regular increments and four weeks annual leave. Removal expenses are not payable on first appointment and applicants from outside the areas are therefore asked to confirm that they envisage no problem in moving to within commuting distance.

Write in confidence by 28th June, 1983 giving full details of experience and employment record, present salary and date available to: The Personnel Manager, The Law Society, 113 Chancery Lane, London, WC2A 1PL.

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Major housebuilding group seeks recently admitted solicitor to join its legal department and undertake all aspects of property work.

Salary and other benefits will be competitive and prospects are excellent for the right person.

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01-519 3666. Broseley



SOLICITORS

Leading firm of Solicitors in Hong Kong require Assistant Solicitors for their Commercial and Litigation Departments.

Applicants should have minimum of two years' post qualification experience in the relevant field and should possess initiative and the ability to work with minimal supervision.

Applicants should apply, with full CV and copies of latest testimonials, to:

Box 0218 H The Times

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telephone number)



Today's television and radio programmes

Edited by Peter Dear

BBC 1

6.00 **Coastal AM**. News headlines, weather, sport and traffic details. Available to viewers with television sets that have the teletext facility.

6.30 **Breakfast Time** introduced by Frank Bough and Nick Ross. News at 6.30, 7.00, 7.30, 8.00 and 8.30 with headlines on the quarter hour; regional news, weather and traffic at 8.45, 9.15, 9.45 and 10.15; keep fit and the family budget between 9.45 and 10.15; preview of the day's television between 10.15 and 10.30; morning paper review at 10.30 and 10.45; Bob Friend's report from America between 10.45 and 11.00.

9.30 **For Schools, Colleges**. Leisure time in Germany. 9.53 Maths Games. 1 (ends at 10.08). 11.00 **Zooms**. 1. Closes down at 11.15.

1.00 **News After Noon** with Richard Whitmore and Sandi Marshall. The weather details come from Bill Gilson. 1.27 Regional news (London and SE only). Financial report followed by news headlines with subtitles. 1.30 News and Traffic. A See-Saw programme for the very young (1.145 Closes down). 2.00 **You and Me**. For four- and five-year olds, presented by Mike Grady (1).

2.15 **For Schools, Colleges**. Zoot. James Earl Rader helps clean the gorilla's cage at Bristol Zoo. With subtitles. 2.30 **The Glazebrook Touch**. A documentary on the work of Bob Glazebrook, senior concert technician of Stainerway, who looks after some 100 grand pianos around the country (1).

3.15 **Your Songs of Praise** Choice presented by Thora Hird. (shown on Sunday). 3.53 Regional news (not London or Scotland).

3.55 **Play School**. Shown earlier on BBC 2. 4.20 **Cartoons**. Three shorts featuring Scooby and Scrappy Doo (1). 4.40 **Take Two**. Lucie Skelton presents another programme in the young listeners' request series. 5.05 **Newsround**. The latest news from around the world for young people, presented by Paul McDowell. 5.10 **Think of a Number**. The science of numbers made easy by Johnny Ball (1).

5.40 **News with Moira Stuart**. 6.00 **South East at Six**.

6.22 **Newsround**.

6.45 **Triangle**. Episode 19 and Sarah Hallam uncovers Ted Anderson's hidden side. 7.10 **Looking Good**. Featuring Phil Lippard and Sarah Kennedy. Among the items this week is Russell Barry talking about his continuing battle to overcome shyness.

7.40 **Tales of the Gold Monkey**. Another thrilling adventure set in the South Seas. This week Jake carries out a daring evacuation of an island hit by plagues, earthquakes and volcanic eruptions.

8.30 **Sorry! Timothy** becomes the pawn in a battle between his mother and his rich aunt Esme (1).

8.00 **News with John Humphrys**.

9.25 **The Falklands Experience**. The first of a new series of Tuesday Documentaries. The programme explores the personal experiences of men engaged in the Falklands conflict. With Brian Hannan and Major-General Sir Jeremy Moore.

10.25 **People and Power** presented by David Dimbleby. Among the subjects this week is an examination of the work of the full-time party agents.

11.03 **Flamingo Road**. Another series of anecdotal tales from the American Deep South.

11.55 **Weather**.

TV-am

6.25 **Good Morning Britain** presented by Nick Owen and Anne Diamond. News at 6.30, 7.00, 7.30, 8.00, 8.30 and 9.00; Randy Eddleman at 8.35; cartoon at 8.45; Bernard Levin reviews the morning papers at 7.05 and previews today's television at 8.35; sport at 7.45; Bucks Fizz video at 7.50; Inside Alan Minter's House at 8.05; You and Your Body at 8.05; and exercises with Mollie Lizzie at 9.15.

ITV/LONDON

9.25 **Thames news headlines**; 9.30 **For Schools**; Elementary arithmetic; 9.45 **Mental**, presented by Derek Griffiths for hearing-impaired children; 10.04 **Caring and Sharing**; 10.14 **Looking after** youngsters; 10.45 **Science in Sport**; 11.05 **Illustrator** and story writer Michael Foreman talks about his work; 11.22 **Basic maths**; 11.39 **French** conversation.

12.00 **Cockleshell Bay**. A seaside adventure of the Cockle twins, Robin and Rosie (1); 12.10 **Once Upon a Time**. Mark Wynter tells the story of the story in the Cuckoo (1); 12.30 **The Suburban**. Drama serial about an Australian family during the Second World War.

1.00 **News with Leonard Parfitt**; 1.20 **Thames news** from Robin Houston; 1.30 **Crown Court**; A Fiddling Connection. Three supermarket employees are accused of theft from their place of work (1); 2.00 **A Plus**. Alan Parker, director of the film *Shogun*, talks to Kay Avila about the changes in film and television commercials since 1962.

2.30 **The Lady Killers**. Not for the nervous. Elaine Page stars as Kate Webster, a woman on the charge of murder. Was she a monster or was she an abused, provoked young lady? Introduced by Robert Morley (1); 3.30 **Does the Team**. This television version of the successful radio comedy series. 5.05 **Newsround**.

5.40 **News with Moira Stuart**. 6.00 **South East at Six**.

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6.45 **Triangle**. Episode 19 and Sarah Hallam uncovers Ted Anderson's hidden side. 7.10 **Looking Good**. Featuring Phil Lippard and Sarah Kennedy. Among the items this week is Russell Barry talking about his continuing battle to overcome shyness.

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BBC 2

6.05 **Open University: Modern Art**. 6.30 **Photocinema**. Vision 6.55 **Diabetes: Causes and Effects**. 7.20 **Alcoholics Anonymous**. 7.45 **Sentences and Rhymes**. 2. Closes down at 8.10.

10.15 **Play School**. For the under fives, presented by Sheelagh Gilbey and Ben Thomas. The story is the traditional Goldilocks and the Three Bears. 10.40 Closes down.

2.15 **Royal Ascot**. Live coverage of four races on the first day of the royal meeting, including the traditional Royal Drive down the course. Julian Wilson introduces the Queen Anne Stakes (2.30); the Prince of Wales Stakes (3.05); the St James's Palace Stakes (3.45); and the Coventry Stakes (4.20). The commentators are Peter O'Sullivan, Jimmy Lundy and John Hamner. Breakfast television's Green Goddess, Diana Moran, describes the runners in the fashion stakes. 4.35 Closes down.

5.10 **Made in the Mad Shooter**. A drama, specially written for this Open University production by Faruqi Dhondy, about life in a multi-racial inner-city school.

5.35 **Topper**. Vintage American comedy series about a husband and wife team of ghosts who haunt their former earthly home in the company of an alcoholic dog. Starring Leo G. Carroll and Lee Patrick. Closes down.

6.00 **I Can Jump Puddles**. Part seven on the nine-episode Australian drama based on the autobiographical novels of Alan Marshall. The disabled Alan takes a job in a haberdashery in order to supplement his money as a writer but he learns that he will only receive half-pay because of his disability.

6.55 **News summary with subtitles**. 7.00 **International Rugby Special**. Highlights of the last three matches played in New Zealand by the touring British Lions plus a preview of next Saturday's second international against New Zealand at Wellington.

7.40 **Film: Muriel on the Bounty** (1952). A disappointing opener to a season of Martin Armstrong films casts the impetuous actor in the role of Fletcher Christian, the First Officer who leads the mutiny against Captain Bligh of HMS Bounty. Traver Howard, Richard Harris and Hugh Griffith head a strong supporting cast. Directed by Lewis Milestone.

10.30 **Royal Ascot**. Highlights of the races on the first day of the royal meeting.

10.45 **Newsnight**. The latest world and domestic news plus an extended look at one of the main stories of the day.

11.35 **Open University: Reading Development**. 12.20 **Calculus: Behaviour of Functions**. 12.25 **What Value Nuclear Proteins?** Ends at 12.55 approximately.

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CHOICE

Anthony Perkins and Richard Crenna play the rather weak men in her life, but perhaps it is the strength of Miss Moore's performance that makes them seem inadequate.

● Bernard Levin is the narrator of a documentary on the life of one of the musical heroes ROBERT MAYER - A BEST REPAID (TV 10.30pm), the remarkable 104-year-old former businessman turned musical philanthropist. The programme traces his life from the time he was a musical prodigy in Mannheim and relates heavily on an interview with Sir Robert recorded when he was a mere 101-year-old. Archive film and recollections from a distinguished list of contributors including Kiri Kanawa and Edward Heath paint an

informative picture of the man to whom most of the good music in Britain is indebted.

● First heard on the BBC World Service 14 months ago THE JOURNAL OF VASILJE BOGDANOVIC (Radio 4, 3.02pm), a play by Alan Plater, has since won a Sony Radio Award for the best drama script. Sandor Elies plays the unfortunate Vasilje, thought to be a Yugoslav international footballer, who joins a struggling north of England second division football club. The journal he keeps is a depressing catalogue of woes. He is homesick, he can't speak English and when he joins his team-mates for a post-match drink the club's alcohol tolerance is much less than theirs. Plater's clever comic style is perfectly illustrated by this tale of mistaken identity.

● If proof were needed that Mary Tyler Moore can play roles other than the scatty woman-type parts with which she is so associated, then FIRST YOU CRY (Channel 4, 9.00pm) will convince any doubters. Based on the autobiography of American investigative reporter Betty Rollin, the story examines the traumatic effect the removal of a cancerous breast has on a middle-aged woman, her husband and friends. Miss Moore plays a difficult role with great sensitivity and is strongly supported with an excellent performance from Jennifer Warren as her best friend, Erica. Obviously in need of mental as well as physical support following the operation, Betty Rollin turns to a former boyfriend for comfort after her husband finds it impossible to come to terms with his wife's change of attitude.

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● Mary Tyler Moore as Betty Rollin. Channel 4, 9.00pm.

Radio 4

6.00 **News Briefing**. 6.10 **Farming Today**. 6.25 **Shipping Forecast**. 6.30 **Today**, including 6.45 **Prayer for the Day**, 6.55 **Weather**. 7.00 **Today's News**. 7.20 **You and Me**. 7.30 **Today's News**. 7.45 **Thought for the Day**. 8.45 **Good Morning**, read by Harry Secombe (2).

9.00 **News**. 9.05 **Tuesday Call**. 9.10 **580 4411**. 9.15 **News**. 9.20 **From Our Own Correspondent**. 9.25 **Learning Story: The Cutting Rock** by Susan Boyd. 10.05 **Daily Service**. 10.10 **News**. 10.15 **Thames Valley Theatre: Two on a Broom** by John Kirkwood. 11.05 **News**. 11.10 **Woman's Hour**. 11.15 **News**. 11.20 **Woman's Hour**. 11.25 **News**. 11.30 **Woman's Hour**. 11.35 **News**. 11.40 **Woman's Hour**. 11.45 **News**. 11.50 **Woman's Hour**. 11.55 **News**. 12.00 **Woman's Hour**. 12.05 **News**. 12.10 **Woman's Hour**. 12.15 **News**. 12.20 **Woman's Hour**. 12.25 **News**. 12.30 **Woman's Hour**. 12.35 **News**. 12.40 **Woman's Hour**. 12.45 **News**. 12.50 **Woman's Hour**. 12.55 **News**. 1.00 **Woman's Hour**. 1.05 **News**. 1.10 **Woman's Hour**. 1.15 **News**. 1.20 **Woman's Hour**. 1.25 **News**. 1.30 **Woman's Hour**. 1.35 **News**. 1.40 **Woman's Hour**. 1.45 **News**. 1.50 **Woman's Hour**. 1.55 **News**. 2.00 **Woman's Hour**. 2.05 **News**. 2.10 **Woman's Hour**. 2.15 **News**. 2.20 **Woman's Hour**. 2.25 **News**. 2.30 **Woman's Hour**. 2.35 **News**. 2.40 **Woman's Hour**. 2.45 **News**. 2.50 **Woman's Hour**. 2.55 **News**. 3.00 **Woman's Hour**. 3.05 **News**. 3.10 **Woman's Hour**. 3.15 **News**. 3.20 **Woman's Hour**. 3.25 **News**. 3.30 **Woman's Hour**. 3.35 **News**. 3.40 **Woman's Hour**. 3.45 **News**. 3.50 **Woman's Hour**. 3.55 **News**. 4.00 **Woman's Hour**. 4.05 **News**. 4.10 **Woman's Hour**. 4.15 **News**. 4.20 **Woman's Hour**. 4.25 **News**. 4.30 **Woman's Hour**. 4.35 **News**. 4.40 **Woman's Hour**. 4.45 **News**. 4.50 **Woman's Hour**. 4.55 **News**. 5.00 **Woman's Hour**. 5.05 **News**. 5.10 **Woman's Hour**. 5.15 **News**. 5.20 **Woman's Hour**. 5.25 **News**. 5.30 **Woman's Hour**. 5.35 **News**. 5.40 **Woman's Hour**. 5.45 **News**. 5.50 **Woman's Hour**. 5.55 **News**. 6.00 **Woman's Hour**. 6.05 **News**. 6.10 **Woman's Hour**. 6.15 **News**. 6.20 **Woman's Hour**. 6.25 **News**. 6.30 **Woman's Hour**. 6.35 **News**. 6.40 **Woman's Hour**. 6.45 **News**. 6.50 **Woman's Hour**. 6.55 **News**. 7.00 **Woman's Hour**. 7.05 **News**. 7.10 **Woman's Hour**. 7.15 **News**. 7.20 **Woman's Hour**. 7.25 **News**. 7.30 **Woman's Hour**. 7.35 **News**. 7.40 **Woman's Hour**. 7.45 **News**. 7.50 **Woman's Hour**. 7.55 **News**. 8.00 **Woman's Hour**. 8.05 **News**. 8.10 **Woman's Hour**. 8.15 **News**. 8.20 **Woman's Hour**. 8.25 **News**. 8.30 **Woman's Hour**. 8.35 **News**. 8.40 **Woman's Hour**. 8.45 **News**. 8.50 **Woman's Hour**. 8.55 **News**. 9.00 **Woman's Hour**. 9.05 **News**. 9.10 **Woman's Hour**. 9.15 **News**. 9.20 **Woman's Hour**. 9.25 **News**. 9.30 **Woman's Hour**. 9.35 **News**. 9.40 **Woman's Hour**. 9.45 **News**. 9.50 **Woman's Hour**. 9.55 **News**. 10.00 **Woman's Hour**. 10.05 **News**. 10.10 **Woman's Hour**. 10.15 **News**. 10.20 **Woman's Hour**. 10.25 **News**. 10.30 **Woman's Hour**. 10.35 **News**. 10.40 **Woman's Hour**. 10.45 **News**. 10.50 **Woman's Hour**. 10.55 **News**. 11.00 **Woman's Hour**. 11.05 **News**. 11.10 **Woman's Hour**. 11.15 **News**. 11.20 **Woman's Hour**. 11.25 **News**. 11.30 **Woman's Hour**. 11.35 **News**. 11.40 **Woman's Hour**. 11.45 **News**. 11.50 **Woman's Hour**. 11.55 **News**. 12.00 **Woman's Hour**. 12.05 **News**. 12.10 **Woman's Hour**. 12.15 **News**. 12.20 **Woman's Hour**. 12.25 **News**. 12.30 **Woman's Hour**. 12.35 **News**. 12.40 **Woman's Hour**. 12.45 **News**. 12.50 **Woman's Hour**. 12.55 **News**. 1.00 **Woman's Hour**. 1.05 **News**. 1.10 **Woman's Hour**. 1.15 **News**. 1.20 **Woman's Hour**. 1.25 **News**. 1.30 **Woman's Hour**. 1.35 **News**. 1.40 **Woman's Hour**. 1.45 **News**. 1.50 **Woman's Hour**. 1.55 **News**. 2.00 **Woman's Hour**. 2.05 **News**. 2.10 **Woman's Hour**. 2.15 **News**. 2.20 **Woman's Hour**. 2.25 **News**. 2.30 **Woman's Hour**. 2.35 **News**. 2.40 **Woman's Hour**. 2.45 <

The day Argentina told Britain by telephone: 'Stop everything'

By Rodney Cowton
Defence Correspondent

On June 14 a year ago, the words came over the radio-telephone in Spanish: "We are prepared to talk. Stop everything." They were uttered by Captain Melbourne Hussey, one of the senior Argentine officials on the Falkland Islands.

Almost immediately the fighting stopped, and within 15 hours had been negotiated and signed. It was possible to accomplish this so quickly at least partly because the British forces had been trying to establish a line of communication with the Argentine forces for more than a week, transmitting messages to them twice daily.

The work was directed by Lieutenant-Colonel (now Colonel) Mike Rose of the Coldstream Guards, but the actual transmissions were for the most part made by Red Bell, now aged 33, a captain in the Royal Marines.

Captain Bell, whose father worked for the United Nations, had spent virtually all his childhood in Latin America, using Spanish as his main language. He came to Britain in 1969 and joined the Royal Marines.

Today he says: "I sometimes wonder why they took me on because I could scarcely speak English. I used to speak and think in Spanish."

That ability paid handsome dividends in the Falklands. Captain Bell says that on June 4 or 5 last year Colonel Rose told him he was going to get him to start talking to Port Stanley. "He told me what he was going to do, and how he was going to do it, and I think Colonel Mike used me because I could assimilate what the Argentines could assimilate, and react how they would react."

The British had worked out that they could make contact with the Argentines either by telephone or by using the short-wave radio frequency on which Dr Alison Blaney on Port Stanley maintained medical contact with the outlying islands.

They were made at various stages from the assault ship HMS Fearless, and at other times from Estancia House, which was in the hills about 14 miles north-west of Port Stanley, the capital, which was known to the Argentines as Puerto Argentino.

Captain Bell made the first call, saying in Spanish: "Puerto Argentino, here in Fearless..." They must have been monitoring that net...



Victors and vanquished: Captain Bell, General Moore (top right) and General Menéndez.

ing that net... We were transmitting perhaps 20 minutes before they responded. We were quite amazed... Hussey said he understood my message, but that it was for governments to negotiate, and that it was not really for us.

"That was one of the few occasions that I actually spoke to anyone between June 8 and 14... Even at this stage we were not talking about surrender. We were talking nevertheless about how we would treat them."

Great admiration for General Moore

On arriving in Port Stanley, Colonel Rose and Captain Bell were taken to the Secretariat building and met General Mario Menéndez, the Argentine military commander.

Captain Bell says: "At the one o'clock meeting we were negotiating a surrender. Menéndez said he could only negotiate for East Falkland, but that was not acceptable. They left the room for 15 or 20 minutes. Menéndez got in touch with Argentina who told him he could not surrender, but he said that as military commander he was going to surrender and did not want any more sorties flown from Argentina."

"He then came back into the room and said he would surrender East and West Falkland..."

Later Major-General Sir Jeremy Moore, the British commander, arrived, having flown by helicopter through a snowstorm to get there, and a second negotiating session was held.

Captain Bell recalls: "Menéndez was very solemn about the whole thing, but I think if he had been a different kind of man we might have had to fight our way through Stanley, to the loss of both peoples. I think he was humane and understanding."

"Menéndez said he had great admiration for General Moore. General Moore said: 'We now have this matter to resolve.'"

Surrender documents were produced in buff A-4 envelopes, three copies in English and one in Spanish.

"The Argentines said unconditional surrender was not compatible with honour, and the word 'unconditional' was crossed out, but General Moore agreed to the retention of side arms by the officers," Captain Bell says.

"After a reference to the Falkland Islands, the Argentines inserted 'Islas Malvinas', but this was rejected by General Moore."

That night General Moore slept in the bedroom in the Governor's House which General Menéndez had been occupying.

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Jenkins opens way for Owen

Continued from page 1

entire membership, at an estimated cost of about £20,000. Nominations will be invited at once and if Dr Owen is the only candidate he will be declared elected unopposed next week, before the new session of Parliament is opened by the Queen.

Mr Jenkins's co-founders of the SDP, Mrs Williams, Mr Rodgers and Dr Owen, issued a joint tribute last night. They said he had made and would continue to make a "massive contribution" to party and country.

"He is the man who first saw that the British political system could not be sustained on the basis of class, race, occupational or regional divisions."

"Since the Limehouse declaration (the beginning of the SDP) no one has worked with more dedication and determination for the SDP and the Alliance and our gratitude to him is immeasurable."

"We have no doubt that the political future belongs to the Alliance of the Social Democrats and the Liberals."

Who the unions want

Top trade unionists started to gather support for their choice of new Labour leader yesterday and it soon became clear that Mr Neil Kinnock was the favourite, (Barrie Clement writes).

Of the 10 biggest unions it is estimated that Mr Kinnock, the labourer's son who represents the South East Wales constituency of Islwyn, has probably gathered about 17 per cent of the electoral college votes which will eventually decide the issue.

Mr Roy Hattersley has an estimated 10.7 per cent of the vote from the top 10, which covers 75 per cent of the union block vote.

So far no prominent trade unionist has suggested that Mr Peter Shore should lead the party and most of the smaller unions not included in the table are expected to back Mr Kinnock.

Unions will take up 40 per cent of the electoral college, with MPs and constituency parties 30 per cent each.

How the big 10 unions are lining up

Trade union	Members	% of electoral college	Probable choice
Union of Communications Workers	189,277	1.23	Kinnock
Union of Construction, Allied Trades and Technicians	200,000	1.27	Kinnock
Electrical, Electronic, Telecommunications and Plumbing Union	180,000	1.15	Hattersley
Amalgamated Union of Engineering Workers (Engineering Section)	850,000	5.41	Hattersley
General Municipal, Boilermakers and Allied Trades Union	650,000	4.14	Hattersley
National Union of Mineworkers	235,054	1.50	Kinnock
National Union of Public Employees	500,000	3.22	Kinnock
National Union of Railwaymen	170,000	1.08	Kinnock
Union of Shop, Distributive and Allied Workers	417,500	2.66	Kinnock
Transport and General Workers Union	1,250,000	7.96	Hattersley

Thatcher's junior reshuffle

Continued from page 1

Peter Brooke escapes from that office to become Parliamentary Under-Secretary at Education and Science. Other promotions to be ministers of state include Mr John Moore, who becomes Economic Secretary to the Treasury; Mr Malcolm Rifkind, who moves up within the Foreign Office; Mr Peter Morrison, in the Department of Employment; and Mr John MacGregor, who moves from Industry to Agriculture.

Under-secretaries transferred at the same rank are Mr Giles Shaw (from Environment to Energy); Lord Trefgarne (from Health to Defence); Mr John Patten (from Northern Ireland to Health and Social Security); Mr Alexander Fletcher (from the Scottish Office to Trade and Industry); and Mr David Mitchell (from Northern Ireland to Transport).

Those for whose resignations the Prime Minister asked include three Ministers of State, Dr Gerard Vaughan, Minister for Consumer Affairs, Mr Hugh Rossi, Minister for Social Security, and Mr Peter Blaker, Minister of State for the Armed Forces.

THE TIMES INFORMATION SERVICE

Today's events

Royal engagements
The Prince and Princess of Wales leave Heathrow airport for Canada, 10.
Princess Anne, Chancery of London University, opens the new extension to the Computer Centre at Guilford Street, London, 10.30.
The Duke of Kent visits British

Aerospace at Dunsford, Surrey, 12.50; as Patron, attends a concert in aid of Leukemia Research Fund, Lakeside Country Club, near Frimley, Surrey, 8.15.
Prince Michael of Kent, as President of the Institute of the Motor Industry, visits Bristol Cars, at Filton, Bristol, 2.15.
Exhibitions in progress
Paintings, sculpture and prints by Fred Bushe, Lennox Dunbar, Ian Howard and Frank Rottgers, Fruitmarket Gallery, 29 Market

Street, Edinburgh, Mon to Sat 10 to 5.30, closed Sun, (until July 2).
Local Artists, Local Landscapes, Timmins Gallery, 22 Salisbury Road, Mossley, Birmingham, Mon to Fri 10 to 4, Wed 10 to 7.30, closed Sat and Sun, (until July 8).
The Eastbank Show, work by staff from Southport College of Art and Design, Atkinson Art Gallery, Lord Street, Southport, Mon to Fri 10 to 5, Thurs and Sat 10 to 6, closed Sun, (until July 9).
Private Views: portraits and self-portraits (until July 10); and A Timeless Journey: paintings by Frans Hals (until July 11), both at Carwright Hall, Lister Park, Bradford; Tues to Sun 10 to 6, closed Mon (until July 31).

TV top ten

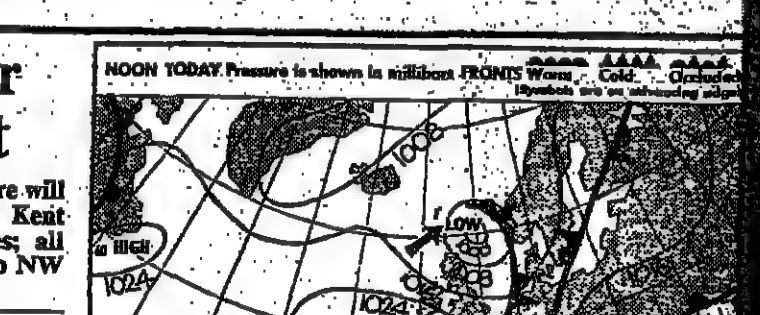
Top ten television programmes in the week ending June 12.
1 When Time Ran Out, ITV, 13.00m.
2 Coronation Street (Wed), Granada, 12.30m.
3 Coronation Street (Mon), Granada, 12.30m.
4 Crossroads (Thurs), Central, 11.55m.
5 The Gaffer, Yorkshire, 10.55m.
6 Crossroads (Wed), Central, 10.45m.
7 Earthquake, ITV, 10.40m.
8 Where There's a Will, Yorkshire, 10.35m.
9 Family Fortunes, Central, 10.20m.
10 Emmerdale Farm (Thurs), Yorkshire, 9.50m.

Roads

London and South-east A215: Single lane traffic southbound from Elephant and Castle to Camberwell Road. A406 North Circular Road: Lane closures between Harrow Road and Neasden. A23 West-minster Bridge Road closed between York Road and Baylis Road; diversions.
Wales and West A38: Lane closures at Marsh Mills viaduct, Lee Mill, Devon. Sheep Street, Clevedon, closed; diversions. M25: Numerous restrictions between junctions 26 (Taunton) and 27 (Tiverton).
Midlands and East Angles A54: Lane closures on Telford by-pass; diversion at junction 5. A1: Lane closures on Stangate Hill, near Alconbury, Cambridgeshire. M1: Lane closures at junction 16 (Northampton); junction 16 closed except exit from southbound carriageway and access to northbound.

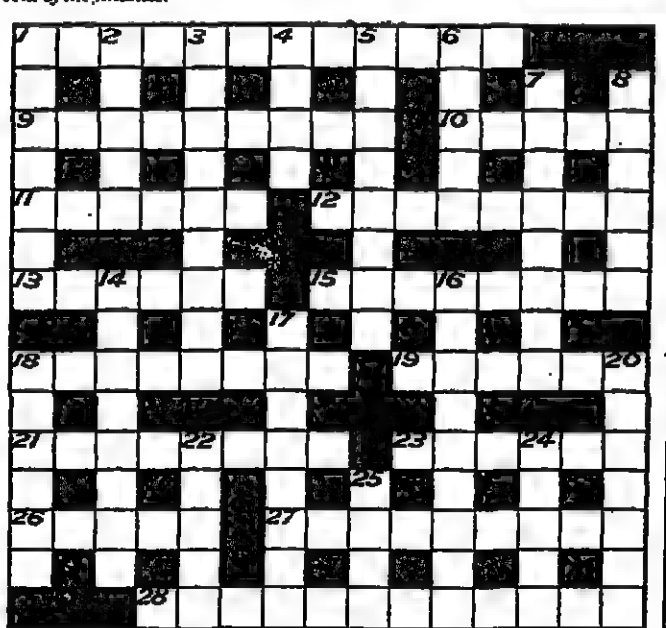
Weather forecast

A trough of low pressure will move away SE from Kent and the Channel Isles; all areas will be in a W to NW airstream.
6 am to midnight
London, East Angles, central S England, E Midlands: Cloudy at first, sunny intervals developing; scattered showers later, wind W to NW, moderate; max temp 16 to 18 (S to 18).
SE: Sunny intervals; scattered showers later, wind W to NW, moderate; max temp 15 to 17 (S to 16).
Wales, West, NW England, W Midlands, Borders, Edinburgh, Dundee: Variable cloud, sunny intervals; scattered showers; wind W to NW, moderate or fresh; max temp 15 to 17 (S to 16).
NW England, Lake District, Isle of Man, SW Scotland, Glasgow, Argyll, Northern Ireland: Showers and sunny intervals; wind NW, fresh; max temp 14 to 16 (S to 15).
Shetland: Mostly cloudy; showers or longer periods of rain; wind NW, fresh; max temp 10 to 12 (S to 11).
Outlook for tomorrow and Thursday: sunny intervals, some rain or showers, chiefly in N becoming warmer.
SEA PASSAGE: S W to S W, strong; S W, fresh, veering NW, strong; S W, moderate, becoming milder. S W, fresh to strong, veering NW, fresh to moderate, locally rough at first. St George's Channel, Irish Sea West W to NW, strong, locally at first; sea rough, locally very rough at first.



The Times Crossword Puzzle No 16,155

This puzzle, used at the Leeds regional final of the Collins Dictionary's Times Crossword Championship, was solved within 30 minutes by 15 per cent of the finalists.



- ACROSS**
- 1 Carpeting, a top covering on the floor (8, 4).
 - 9 Water carrier used to be very good in Indian tent, mostly (5-4).
 - 10 Bowler out for a duck? (5).
 - 11 Plenty for Pussy (6).
 - 12 Allowing Drummond to hold nothing after the high note (8).
 - 13 More offensive in private (6).
 - 15 Boss of a colliery in Somerset (8).
 - 18 Belts you violently and insensitively (8).
 - 19 Container ship (6).
 - 21 One of two passed in common entrance (8).
 - 23 Horrified Turkish commander, a good man (6).
 - 25 It's futile to write back in Italian (5).
 - 27 Leader of German army left general resembling Caesar at Philipp (5-4).
 - 28 Putting to sleep thus in hospital; typical only after treatment (12).
- DOWN**
- 1 Fates vos jeux, old lady (7).
 - 2 Break lease and make a stand (5).
 - 3 Here members used to lift heavy weights (5-4).
 - 4 There's nothing about a fix (4).
 - 5 Scottish river tarten is cunningly contrived (4-4).

Last chance to see
The Spirit of Japan colour prints by Harold Rose, Beeson Library, Foster Avenue, Beeson, Nottingham; Mon to Fri 9.30 to 7.30, Thurs and Sat 9 to 1, closed Sun (ends today).
Local Architects and Architects' Museum and Art Gallery, John Frost Square, Newport, Gwent; Mon to Thurs 10 to 5.30, Fri 10 to 4.30, Sat 9.30 to 4, closed Sun (ends tomorrow).
Musik
French organ and trumpet music by Marie-André Morisset-Baillet and Michael Morisset, Cathedral Church of St Thomas, Portsmouth, 1.45.
Organ recital by Mark Dwyer, Elvet Methodist Church, Old Elvet, Durham City, 8.
May Week orchestral concert, University Music Hall, West Road, Cambridge, 2.30.
Organ recital by Elizabeth Le Grove, Bangor Cathedral, 1.15.
Concert by Catham Choral, Bristol Cathedral, 12.45.
Piano recital by Nina Vinogradova-Bick, Chichester Cathedral, 1.10.

General
Grand Antiques and Collectors Fair, Brighton Centre, Brighton, 10 to 6.
Three Counties Agricultural Show, Malvern, today, tomorrow and Thursday.
West Kent Brass Rubbing Centre opens today. The Crypt, Rochester Cathedral; Mon to Sat 10.30 to 5 (until Aug 31).

The pound

	Bank	Bank
Australia \$	1.87	1.78
Austria Sch	29.35	27.78
Belgium Fr	82.75	78.25
Canada \$	1.99	1.91
Denmark Kr	14.82	14.07
Finland Mk	9.06	8.56
France Fr	12.41	11.86
Germany DM	4.14	3.93
Italy Lira	136.50	128.50
Japan Yen	1.31	1.25
Netherlands Gld	4.64	4.41
Norway Kr	11.82	11.42
Portugal Esc	169.00	156.00
South Africa R	2.14	2.04
Spain Pta	224.50	213.50
Sweden Kr	12.33	11.80
Switzerland Fr	3.45	3.28
USA \$	1.62	1.56
Yugoslavia Dnr	139.00	131.00

Retail Price Index: 332.5.
London: The FT Index closed up 4.2 at 721.5.

Anniversaries

Deaths: Emmeline Pankhurst, London, 1928; G. K. Chesterton, Beaconsfield, Buckinghamshire, 1936; Maksim Gorky, Leningrad, 1936.
G TIMES NEWSPAPERS LIMITED, 100, Strand, London, WC2R 0JH. Printed and published by Times Newspapers Limited, P.O. Box 200, City News, London, WC1N 3XX. Registered at a newspaper at the Post Office.

The papers

"It has taken a woman Prime Minister to revive an institution which discriminates disgracefully against women: the hereditary English peerage," says the Daily Mirror. "The new Viscount Whitlaw has four daughters but no sons, so his title will die with him; what could be more sexist than that?"

Mr Roy Jenkins's resignation as leader of the SDP is "an act of courage and integrity," says the Daily Express. "As the older statesman of a fledgling but dedicated party, (he) still has much to offer, even if his ultimate dream of membership must now elude him."

Pollen forecast

	Pollen	Peak
Aberdeen	high	8 to 9 pm
Belfast	high	8 to 9 pm
Birmingham	high	8 to 9 pm
Bristol	high	8 to 9 pm
Cardiff	high	8 to 9 pm
Edinburgh	high	8 to 9 pm
Exeter	high	8 to 9 pm
Gloucester	high	8 to 9 pm
Leeds	high	8 to 9 pm
London	high	8 to 9 pm
Manchester	high	8 to 9 pm
Newcastle	high	8 to 9 pm
Nottingham	high	8 to 9 pm
Sheffield	high	8 to 9 pm
Southampton	high	8 to 9 pm
Stoke	high	8 to 9 pm
Swansea	high	8 to 9 pm
Torquay	high	8 to 9 pm
Wolverhampton	high	8 to 9 pm
Wrexham	high	8 to 9 pm

Lighting-up time

London 9.40 pm to 4.15 am
Bristol 9.50 pm to 4.25 am
Edinburgh 10.00 pm to 4.35 am
Manchester 10.00 pm to 4.35 am
Newcastle 10.00 pm to 4.40 am
Preston 10.00 pm to 4.40 am

Yesterdays

Temperature at midday yesterday: c, cloud; f, fair; s, sun.
Sun rises: 4.43 am
Sun sets: 8.05 am
Moon rises: 12.35 am
Moon sets: 12.35 am
First Quarter: June 17.

London

Yesterday: Temp: max 8 am to 8 pm, 18C (64F); min 6 pm to 8 am, 11C (52F). Humidity: 65% at 6 pm. Rain: 24.4 mm (0.96 in). Wind: 10 to 15 mph, gusts to 20 mph. Sea: 1.0 to 1.5 m (3.3 to 4.9 ft). Fog: 1.0 to 1.5 m (3.3 to 4.9 ft). Visibility: 1.0 to 1.5 m (3.3 to 4.9 ft).
Highest and lowest
Yesterday: Highest: 18C (64F) at 8 pm. Lowest: 11C (52F) at 6 am. Rain: 24.4 mm (0.96 in). Wind: 10 to 15 mph, gusts to 20 mph. Sea: 1.0 to 1.5 m (3.3 to 4.9 ft). Fog: 1.0 to 1.5 m (3.3 to 4.9 ft). Visibility: 1.0 to 1.5 m (3.3 to 4.9 ft).

Around Britain

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and, W moderate; rain, moderate (59 to

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Money, Arkway, or frolic

NOON TODAY

High tide

	AM	PM
London Bridge	4.0	3.7
Aberdeen	4.0	4.2
Birmingham	4.2	4.2
Cardiff	4.2	4.0
Edinburgh	4.3	4.2
Exeter	4.0	4.0
Gloucester	4.0	4.0
Leeds	4.0	4.0
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Manchester	4.0	4.0
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Japanese technology

The Japanese have reached the frontiers of technology in such fields as consumer electronics, robotics, computers, semi-conductors, optical electronics and genetic engineering. Their strength has been to take ideas from outside and successfully

mass-produce and market them. Their inventiveness has been in production technology and product design. Can they now move back the frontiers of technology on their own, or does their educational and social system stifle true originality? Bill Johnstone went to find out.

A poster showing hands - robotic and human - holding the world aloft provides a striking advertisement for Expo '85, a Japanese science and technology exhibition to be held in Tsukuba, near Tokyo, in two years' time.

The theme of the international exhibition, which will be a showpiece for the advances made by Japanese scientists, is "science and technology for man at home". That theme is consistent with goals being pursued by technologists all over Japan who are convinced that a technological revolution will take place in the home by the end of the century.

New products from the research laboratories will be used either in the home or be easily accessible from the home. They include: high-quality television with twice as many lines as at the present; discs on which the user can record everything he/she desires, whether that be information, music or video; microcomputers controlling everything in the home from lighting to cooking.

Every home will be linked by high-speed, large-capacity telecommunication circuits. Computer systems, both small and large, will be programmable by the non-technician and respond to his/her verbal commands and, even, handwriting. These areas are the primary subjects of research and development for Japanese industry.

The essence of this technological revolution is digital processing. By this method a piece of information is stored in the form of a 0 or 1, in a similar way to that used by computers for over 20 years.

The same technology will be used to store every type of domestic information, whatever its source, and transmit it down a cable or across the sky by satellite.

The race towards that goal has started and the West and East are competing to get there first. There is equally intense competition between Japanese companies, as can be seen from the battle between Sony and the Japan Victor Company (JVC) for dominant positions in the

video market at home and abroad.

But are the Japanese, once peddlers of cheap junk, now the masters of production technology, able to make the vital step into real innovation? Westerners consider that the Japanese are superb at developing other people's inventions but are incapable of pure research. They are doubtful that Japanese society, where collectivism is encouraged and individualism is not, can be the source of original thinking.

The reality is quite different. While researchers at Sony and Nippon Electric Corporation (NEC) concede their concern and such worries are aired in the Japanese press by manufacturers, the Japanese way of life may be better suited to the management of technology than that of Western countries.

High-quality innovative research on modern, complex technologies is not done by individuals on any substantial scale but by properly managed teams. A recent example of collective innovation was demonstrated by the Japanese semiconductor companies Fujitsu, Hitachi, NEC, Toshiba, Oki and Mitsubishi, which got together at the suggestion of the Japanese Ministry of International Trade and Industry (MITI) to develop general-purpose computer systems and advanced silicon production technology. The technology called VLSI (very large-scale integration) allows a substantial number of electronic elements to be packed onto a single microchip.

Three partnerships were formed: between Fujitsu and Hitachi, NEC and Toshiba, and Oki and Mitsubishi. In each case a new computer system was produced. Two groups were formed in the VLSI project: Fujitsu/Hitachi/Mitsubishi and NEC/Toshiba. That project, which finished in 1980 after five years' research at a cost to the Japanese government of yen 30,000m (about £80m), was to generate over 700 patents and put the Japanese ahead of the Americans, who had dominated the semiconductor market for a decade.

So refined was the production

technology developed in the five years that 256,000 bits of information can now be stored on a single chip-the 256K RAM (Random Access Memory)-and within the next few years there will be a large-scale production of chips with a capacity of over one million.

The theory that Japanese industry is controlled by MITI and the country is run like Japan Incorporated, with a board of directors made up of Japanese bureaucrats, is popular, particularly among Americans. Professor Gene Gregory of Sophia University in Tokyo is an American who has studied the Japanese at close quarters and does not subscribe to this theory. However, he is convinced that the West must respond to the challenge of technology management as positively as the Japanese if it is to succeed. It is not investment which is always of paramount importance, since the Japanese have lagged behind in this field, but rather the management of the technology.

That management involves MITI in all major policy decisions. The ministry is very influential but has had a few notable failures - the growth of the home car manufacturing base, which it disliked, and the rivalry between the two Japanese video tape formats, VHS and Betamax. MITI is prepared to direct industry, and in turn industry is amenable in a way which is quite alien to the American style of company management.

However, Professor Gregory claims in a recently published paper that the Japanese government support for research and development (R&D) remained conspicuously low through the 1960s and the 1970s, although industry made remarkable progress.

Nevertheless, the amount of money devoted by the Japanese to R&D has been rising steadily for a decade and reached an estimated 6,000,000m yen in the last fiscal year. According to the Japan Machinery Exporters' Association, this R&D finance comes largely from the private sector. Its contribution to R&D is now 70 per cent. In the US, West Germany, France and

Britain the ratio of private to public R & D finance is almost 1:1.

The principal drive of this Japanese effort and investment is to manufacture high-technology products for the non-technical user. The most futuristic of these projects being termed the Fifth Generation Computer.

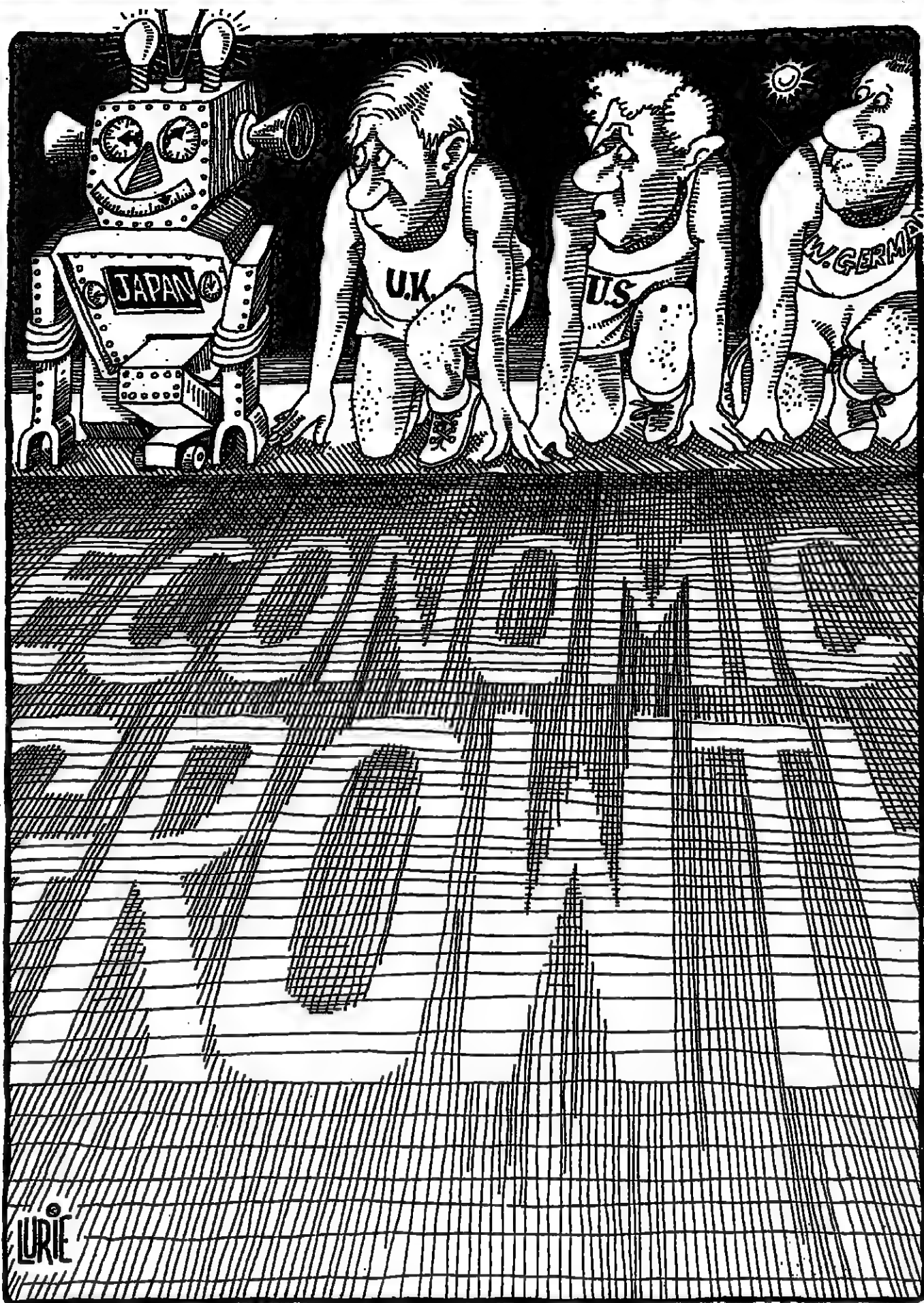
This project, which involves the US, Japan and most of the developed European nations, including Britain, will result in the design of computers which will not only be fast but will respond to voice, touch and simple human commands. They will have built in intelligence - called artificial intelligence (AI) - which will allow the computer to have a memory similar to that of a human being, enabling it to make independent decisions based on its own experience.

Whether it is too ambitious to expect the Fifth Generation Computer project to be successfully completed in 10 years, as is the aim, nobody knows, but the Japanese are giving it a try.

Fundamental to its success, and to that of every other technical project in which the Japanese are engaged, is standardization. Without international cooperation in the early stages of these projects, different companies and different countries will go their own way and compete with incompatible designs, which will reduce the export potential of any developed technology. This potential is a primary ingredient in any successful Japanese venture, particularly in consumer electronics.

To that end JVC, which is developing its own high-density digital tape on which can be stored millions of bits of information, is negotiating with a number of multinational companies in an effort to ensure that standardization is agreed at an early stage.

Robots will assist in the manufacture of future technological products, many of which may be made of ceramics and new forms of plastic. Biotechnology could provide the energy and the foodstuffs to fuel a new high-technology miracle.

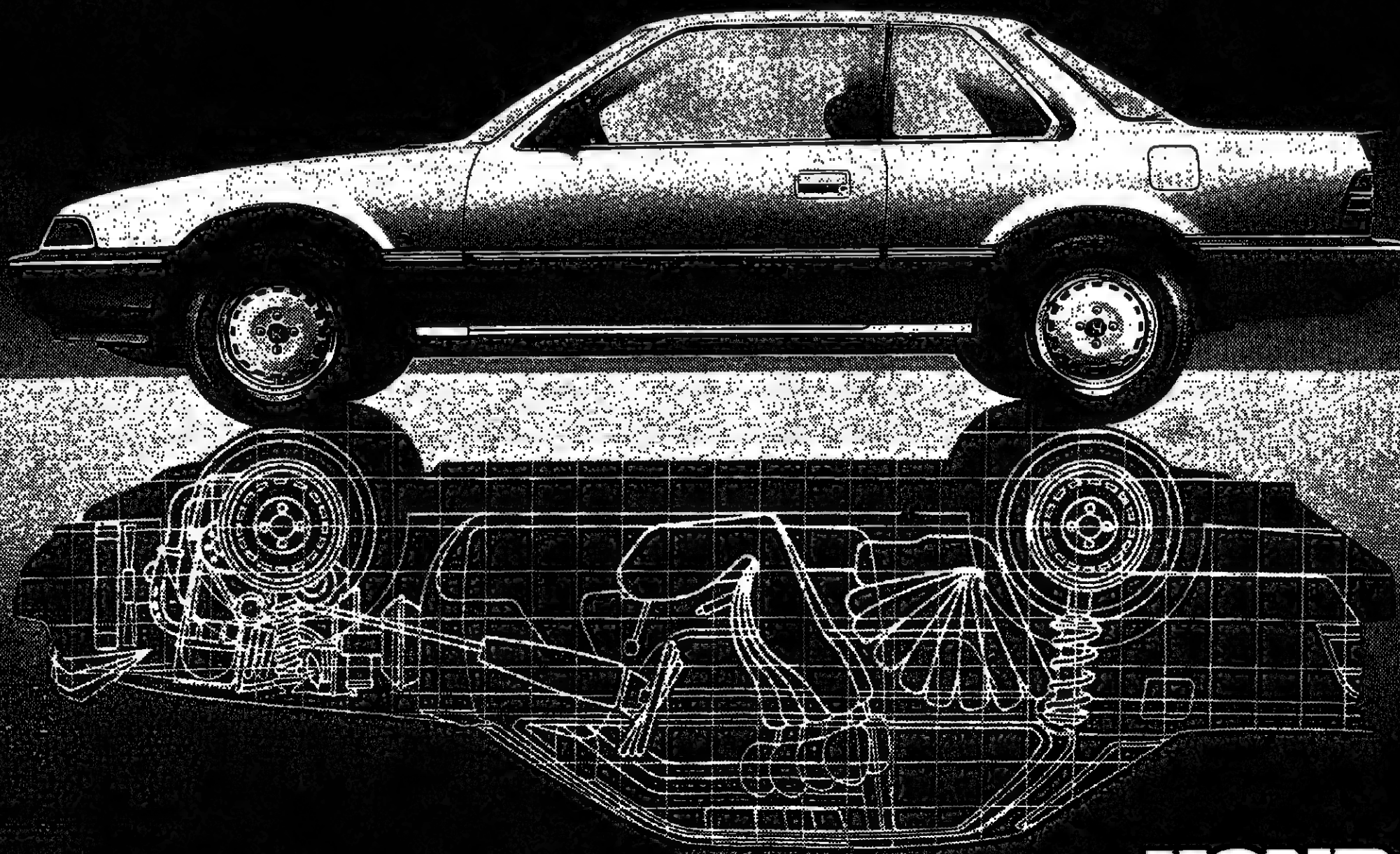


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The house of the future, peppered with electronics

No other country in the Japanese high-technology market has generated as much competition inside Japan, and been the source of so much ill-feeling directed at Japan from abroad, as consumer electronics. High quality, mass produced audio and video products have caused European and American manufacturers to review their entire production procedures. In the last decades substantial inroads have been made by the Japanese into overseas television and stereo markets, particularly in West Germany, France, Britain and the United States.

Japanese innovations in consumer electronics, apart from the skills developed in production and quality control, have been refined in the area of product marketing. The Sony success with the portable stereo "Walkman" tape recorder, which has been emulated in some form by every major competitor, is the most recent example. A new market for small screen colour television sets, created by the Japanese in Europe because of the Telefunken patent on the British and German television system (PAL), which prevented the import of foreign colour televisions above 20", is another prime example of the Japanese product innovation.

The product and not the technology is the aim of most R & D projects for Japanese companies and there is fierce competition to be first on the market. Home, or consumer, electronics is potentially the most important growth area in high technology and is commanding a great deal of attention since it is in this sector that attractive packaged products are essential to success.

That growth will come about because of the increase in leisure time and the high cost of energy, while advances in telecommunications will make communication between homes and offices simple and cheap. The home of the future, which is the subject of research by all the major Japanese consumer electronics manufacturers, will be peppered with electronic

devices, most of them using digital technology - where all information is represented by electrical pulses similar to the techniques refined in computers. The typical home would have a high definition colour television set, and erasable video or audio disc, compact disc/tape and a microcomputer.

High definition television is an essential ingredient of this new home. The set will not just be the principal display for video films, whether supplied by disc or tape, but also of electronic mail and newspapers of videotext, which will depend heavily on good resolution television technology. To that end, NHK (Nippon Hoso Kyokai), the national broadcasting company of Japan, has spent the past 12 years developing its 1125-line television system, twice the number of lines normally used in Japan.

High definition TV, erasable audio discs, microcomputers will be a way of life

The project, conducted in collaboration with Sony, Ikegami, Hitachi and Panasonic among others, has now reached the stage where test transmissions will take place next year using the NHK channels on the Japanese direct broadcasting satellite. The system can be extended to one using 2,000 lines. Dr Makoto Kikuchi, director of research at Sony, says: "We believe that the television set will become a much more complicated and much more sophisticated system as part of the new communication systems of the future. So we must prepare. The general direction is to improve the picture lines and the picture element".

Not all Japanese consumer electronics manufacturers are agreed on how the new market

can best be exploited. Sony has decided that at this stage there is no consumer market for the video disc, although it is using the technology as a teaching aid. JVC, on the other hand, has just launched its own video disc in competition with the technologies of Philips of Holland and RCA of America.

The JVC video disc uses the changes in electrical capacitance, detected by a diamond stylus as it moves around the disc, as the means of extracting the information contained on it. Each disc, about the size of an LP, contains hundreds of tiny holes or pits which represent the encoded information contained on the record. The diamond stylus passes over the disc, which rotates at between 750 and 900 rpm, depending on the television system - PAL for Britain and West Germany, SECAM for France, and NTSC for the United States and Japan.

The same players, properly adapted, can be used to play high quality audio discs. The main drive of the consumer electronics manufacturers is to cater for information dissemination, a market which has not yet been fully tapped anywhere in the world. The Japanese, with their talent for penetrating markets, as demonstrated by their success in the United States, wish to ensure that their products are internationally acceptable.

To that end JVC, which has developed the world's first digital compact cassette capable of recording one hour on each side, is making strenuous efforts to get agreement on an international standard. The information on the cassette is so densely packed that music on it can be accompanied by still pictures or graphics. Sony has also launched a compact disc.

Both JVC and Sony technologies are to be developed in such a fashion that information culled from any source, whether it represents a picture, sound or information for a microcomputer, can be processed the same way. The digital signal processing developed for the compact

disc is one of the technologies which will make many other developments possible.

Digital signal processing will revolutionize many phases of electronics. Dr Kikuchi says: "The compact disc is the combination of two technologies from Philips and Sony. The contribution by Sony is in the digital signal processing. For example, one signal is divided into, say, test parts and these are distributed in different places. If part of the signal is missing then we can extrapolate and reconstruct it".

The results of the Japanese five-year programme on the technology of VLSI (very large scale integration) has been harnessed by the consumer electronics manufacturers. This VLSI technique allows large numbers of components to be concentrated on one microchip.

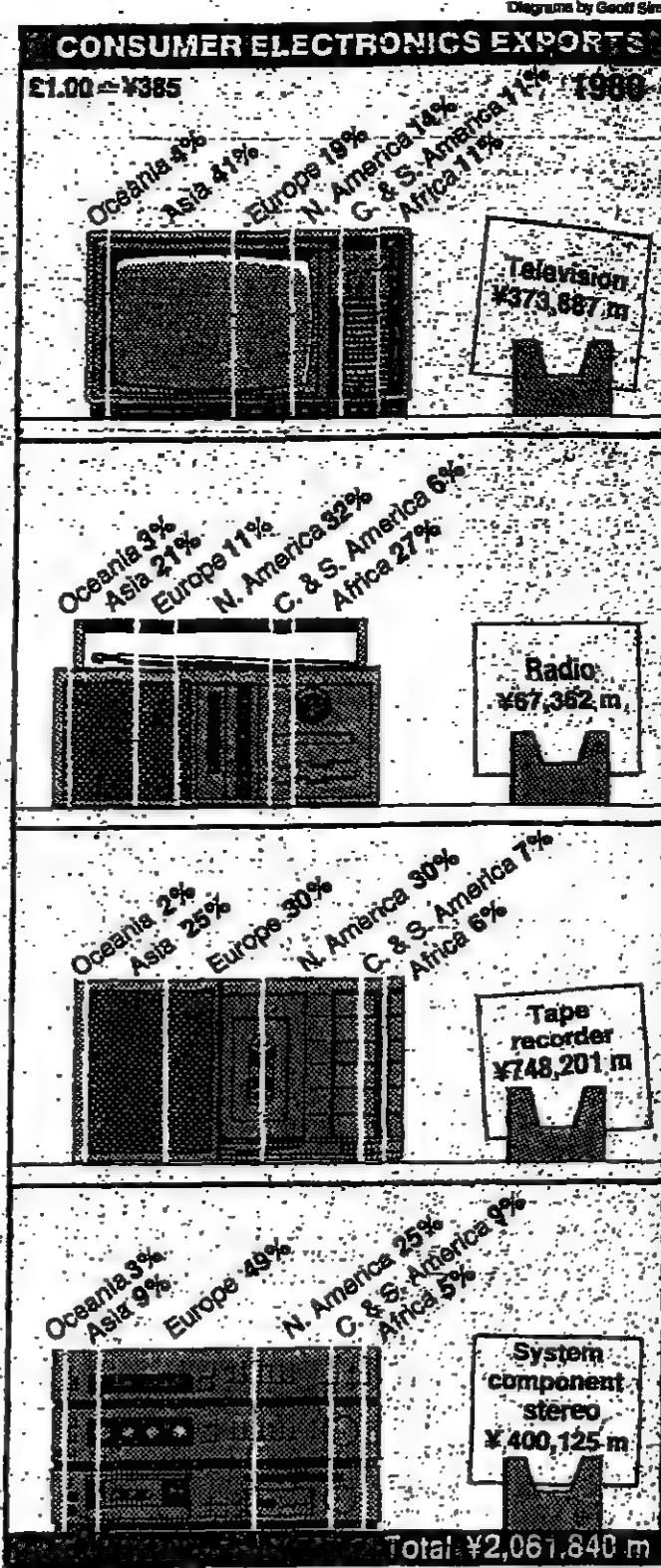
According to Dr Kikuchi: "If we did not have VLSI this (compact disc) could not be put into a small system. I believe that the future of the compact disc is very wide and that it will be improved in its operation by the use of microprocessors".

The role of the home electronics devices will change in the near future as microcomputer penetration increases. The Sony-Philips compact disc technology could, like the JVC high density tape, become the storage area for information used by the home computer. Sony is currently engaged in researching that possibility.

High density tape recording is also being investigated by Sony. Instead of the recording signal being placed along the length of the tape, the information is laid like railway sleepers across the width of the tape using a technique called perpendicular recording.

Opto-electronics will also play a vital part in consumer electronics development. Digitalized electrical signals represented by light pulses not only ensure good reproduction, but in this form they can be transmitted at high speed over fibre optic cables.

Bill Johnstone



Thirty-four per cent of Japan's consumer electronics exports went to Europe in 1980, 26 per cent to North America, 24 per cent to Asia, six per cent each to Africa and to Central and South America, and four per cent to Oceania.

How the office caught up with technology

The Japanese, far more than most other people, demonstrate the hard instance when a national consensus on some issue or new development arises. This trait explains in part why Japanese businesses, for the past three years, have been stamped into what is dubbed the office automation or OA boom.

The consensus was, and is, that Japan has seriously behind in improving the productivity of its white collar work force, the "salarymen" and "office ladies", who still are obliged to pour green tea when visitors arrive.

With stable, but low, growth ahead, managers could no longer ignore the office. Fortunately, this conclusion coincided with the development of technology which transformed Japan's large electrical companies into world-class competitors in microelectronics, the foundation on which office automation is now strategically perched.

Like many past booms in Japan, this one was sparked by what had happened in the United States. In 1977 an American researcher shocked the Japanese business community with a study indicating that during the 1960s, before office automation took hold, American productivity in manufacturing rose by 90 per cent. Office productivity, however, increased by only four per cent.

The handwriting, so to speak, was on the wall. Japanese business had been through one computerization boom, dubbed the MIS boom for management information systems. This began in 1963 and ran out of steam three years later except in such industries as banking and insurance. In any case, MIS was more concerned with putting information in the hands of management, not making it more efficient.

Looking around their overstuffed headquarters and cumbersome procedures in the late 1970s, however, Japanese managers concluded that Japan's performance on productivity was probably identical to that in the United States a decade earlier.

In 1979 there were only 1,000 word processors (Japanese language) being used in Japan compared with 470,000 in the United States. The mean one per 23,740 Japanese white-collar workers, versus one per 105 in America. There was one small business computer per 701 versus one for 49 in the United States. One of the few things Japan led in was facsimile machines, which can transmit images, including the Japanese language, by telephone.

The gap has much to do with the differences in Japanese and

sponsored dozens of OA exhibitions and fairs.

The boom began in earnest in 1980, when the government in a far-reaching (though somewhat fanciful) 1980 Ministry of International Trade and Industry "vision" for Japan in the 1990s as a future "information society". The concept covers all aspects of life in Japan, including factory automation and moderating the distribution system.

Virtually every electronic equipment manufacturer has since joined in, for good reason. While traditional items like television sets and washing machines had reached a peak, the OA market grew from all to an expected 1,000,000m yen (about £2,625m) in sales of everything from personal and business computers (nearly all personal computer sales are to businesses, rather than individuals) to facsimile machines. By 1985 the market should triple, according to the OA institute.

The OA industry consists of half a dozen makers of large-scale integrators, six producers of business computers, 30 companies making personal computers (not all brand names, however), 47 companies offering 160 varieties of a Japanese language word processor, 10 makers of facsimile machines, and five companies in the telecommunications business.

Competition is fierce. With few exceptions the 30, especially for personal computers (now growing by 30 per cent a year), word processors (up 200 per cent per year), is a domestic affair. Foreign companies have taken only a small share of the Japanese market. Likewise, Japanese attempts to branch into such fertile markets as the United States have met with little success. The barrier for both sides is computer software, by far OA's most crucial problem in Japan, and each other's language.

The ideal total system for a Japanese company - none so far exist - would communicate, process, store and finally give the answer in Japanese. Nor is the climate ideal for full-scale moves into office work stations. Even the NEC Corporation, the biggest in the business, admits: "In introducing its own ideas of a total system, the industry is still in the early stages of progress in small and medium-size companies will be even more difficult."

The potential buyer still faces regulations by the Ministry of Public Safety Communications, limiting the use for data transmission (including facsimile) of such things as telephones in private branch exchanges. Standardization is still nascent. The results are that

The onward march of the robots

The Japanese are probably the world's greatest robot enthusiasts. In only 15 years, since Japan's first deal to import robot technology from the pioneering US company Unimation, the nation has built up an impressive total of more than 150 robot manufacturers and has installed two to three times as many robots as the United States itself, and 10 times as many as West Germany, its closest European rival.

The exact number of units in operation is hard to estimate, because of problems of defini-

tion. Most Western analysts put Japan's total at between 10,000 and 15,000 units, while Japanese estimates are more often in the region of 80,000 to 100,000.

The discrepancy lies in the fact that the Japanese are the world's worst at labelling even such things as overhead cranes as robots. This ignores the key attribute necessary for robot status, which is the capacity for rapid reprogramming to handle a variety of tasks. Sometimes in Japan, this is an innocent over-liberal use of the word.

Occasionally it is an attempt to boost sales of an otherwise unimpressive product. Both tendencies reinforce the notion that, for the Japanese, robots have a favourable image.

There have been few signs in Japan of the fears about the introduction of robots common in the West. This can be accounted for largely by the fact that in Japan robots have been introduced within an environment of comparatively smooth economic growth and low unemployment, combined with good labour-management re-

lations. Management has also "sold" robots skillfully by stressing their benefits, such as the freeing of workers from dirty and dangerous jobs, and by avoiding any direct linkage with suspension of employment.

This has worked especially well in large companies where workers have faith in the protection offered by their "lifetime employment system" and readily accept reallocation to alternative jobs where necessary. The Japanese have also grown to like their international

status as leaders in robotics applications, and well-publicized research on the use of robots for such chores as nuclear power station inspection work and coal-mining has helped to nurture the public's positive attitudes.

One of the latest such projects is being coordinated by the Ministry of International Trade and Industry, and calls for an expenditure of 20,000m yen (about £52m) over the next eight years on the development of robots for use in hazardous environments.

Only recently, however, have the Japanese finally started having doubts about the onward march of robots.

A survey of 1,568 business corporations in April by the Economic Planning Agency found that 13.2 per cent of manufacturers believed that employment would decline sharply, and 69.4 per cent believed it would decline to some extent, in the foreseeable future, as a direct result of robot introduction.

It is also now recognized that small companies are increasingly using robots to reduce labour costs, and workers laid off in this sector often have little union protection against dismissals. The spirit of compromise prevails, however, as illustrated by a unique agreement signed between Nissan and its workers.

This March the vehicle manufacturer promised to give full consideration to the possible impact on its employees when new technology is introduced, and agreed it would "not fire or lay off any of its employees for reasons connected with the introduction of technological innovations."

Even the policy document on the subject issued by Sohyo, the general council of trade unions of Japan, acknowledges that "restricting introduction of new technology... often involves difficulties, as such technology is usually adopted in the midst of severe inter-firm competition" and advises flexibility on the issue by its members.

The only really radical proposal was made, last year, by the Komeito opposition party, which called for a "robot tax" to be levied to compensate affected employees, but no action has been forthcoming.

Robots were first used in volume in Japan in the motor industry. Initially these were mainly welding robots, but in recent years more and more of the assembly lines are being automated by the addition of spray-painting and sealing units. In some of the most advanced factories inspection and maintenance work is the only substantial task remaining for humans, and even some of these jobs will soon be automated as improved sensor devices and monitoring systems are gradually added.

The fastest growing area of robot installation at present is in manufacturing industries, where the principal challenge is in the robotization of assembly processes. Assembly robots have arrived in a variety of shapes and forms, but usually feature some sort of handling device, either built on an

arm, waving, varying degrees of dexterity, or suspended within a box-like frame. Designers have sought a configuration which offers flexible access across the widest possible workable, while keeping the required installation space for the robot itself to a minimum.

A particularly successful design is the Scara assembly robot developed by Dr Hiroshi Makino, of Yamaguchi University. The Scara features only four "degrees of freedom", yet closely approaches the optimum design in terms of the flexibility and accuracy necessary for the majority of assembly tasks.

Trends in design are being greatly influenced by changes in manufacturing requirements, where product cycles are becoming increasingly short and items are required in ever smaller batches.

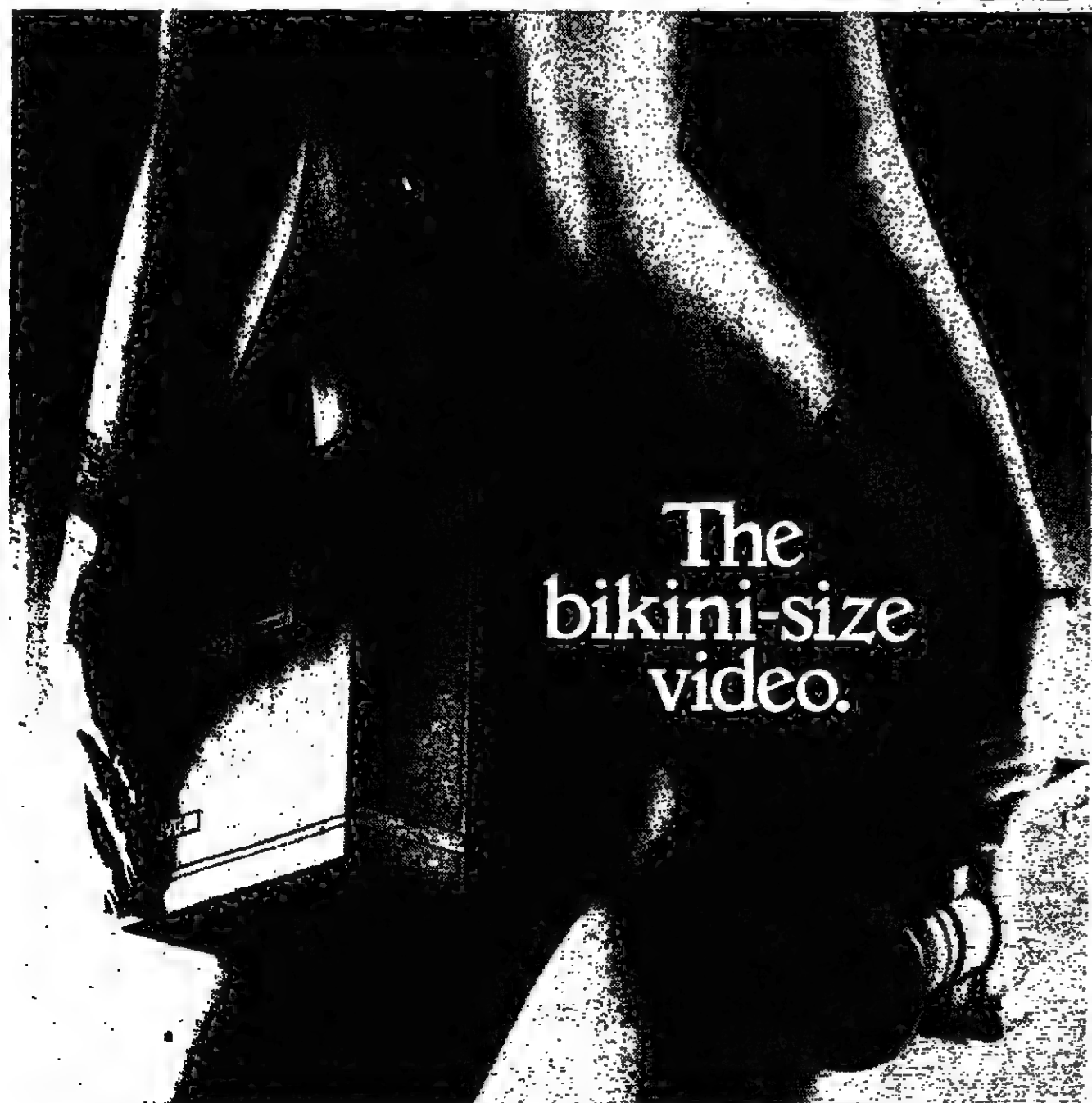
The ability to provide flexibility in the manufacturing processes is thus of growing importance in reducing equipment and investment costs and in increasing competitiveness, and is one of the reasons why the introduction of robots is seen to be so vital.

The ultimate goal in the assembly field is the achievement of the FMS (flexible manufacturing system). Here, a certain level of conventional automation will probably remain, especially in the form of conveyor systems, but will operate in combination with an assortment of "handling" and assembly robots linked to advanced electronics control systems.

There have already been big advances in this direction. Fanz, Ltd, has established a world and in the development of NC (numerical control) machines, the reprogrammable electronic control systems which direct the robot's operations, and several factories are now experimenting with systems capable of 24-hour unmanned operations.

Aware of this trend, Japan is already diverting more research and development to software programmes, and to research into such fields as vision and ultra-sound sensors which will make robots more "intelligent". Japan is also entering into more international tie-ups involving technology exchange. The Japanese themselves believe that the US, in particular, remains a formidable competitor, and their biggest concern these days is that they do not fall at the software hurdle.

Roy Garner



The bikini-size video.

JVC introduce VHS(C)...and their lightest, smallest portable video ever.

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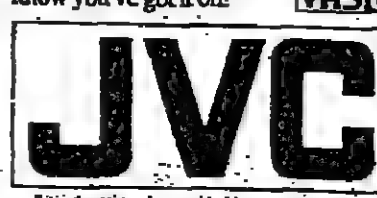
around, but if you want to record or play them back on a standard VHS video recorder you can by using a cassette adaptor.

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Using the colour developing unit on the new Canon NP500 copier, one element of office automation

United States management style, a topic which has itself produced a sea-saw flurry of interest in the last few years.

There are few job descriptions when people are taken on by a Japanese company. Hence the difficulty in coming up with, say, computer work stations designed for people with specific functions. Whereas American managers like to work in separate offices, communicating through secretaries, Japanese offices are open groupings where most communication is verbal, not in the form of memos, and files of documents are less important.

Nevertheless, managers and manufacturers alike saw that future technology could help solve such pressing problems as working in a very inefficient mother-tongue. Notable achievements could be cited in areas where automation was pursued vigorously.

OA thus became a sort of rallying call for movement, even if directions were not clearly defined. A quango called the Institute of Office Automation appeared in 1982. Industry associations have

buying has tended to be piecemeal so far.

Advances are being made, slowly in the area of software, though more rapidly in the area of Japanese language word processing. The problems revolve around how to input the language. One recent solution is a device which recognizes characters as they are written on a pad. Voice input is being tried. How to get the machine to answer questions using Japanese characters, selected from a range of tens of thousands of possibilities, is a separate problem.

By 1990, however, the Japanese office should look quite different. The number of work stations off all types, linking people to office systems should have improved to about one to four by then instead of the one to twenty or thirty now, according to Mr Hisashi Watanabe, vice-president of NEC.

What office automation will do to Japan's still relatively stable employment system or management style, remain to be seen.

Richard Hanson

office
t up
nology



Maxell. The magnetic force.

In April 1984 a major new force reaches the U.K.; the £25 million Maxell videotape plant opens for business in Telford, Shropshire.

The building of the factory says much about Maxell's commitment to the U.K., the remarkable success of Maxell's advertising here, and the phenomenal growth of the company since it started in Japan in 1961.

Currently Maxell is Japan's fastest-growing company, exporting some 60% of its products throughout the world, and achieving sales last year in excess of 133 billion yen.

The Telford plant supplements Maxell's factories in Japan and in Georgia, U.S.A.; the company also has sales offices in Tokyo and other major Japanese cities, New York,

Dusseldorf, Copenhagen, Amsterdam, Hong Kong, Singapore and Kuwait.

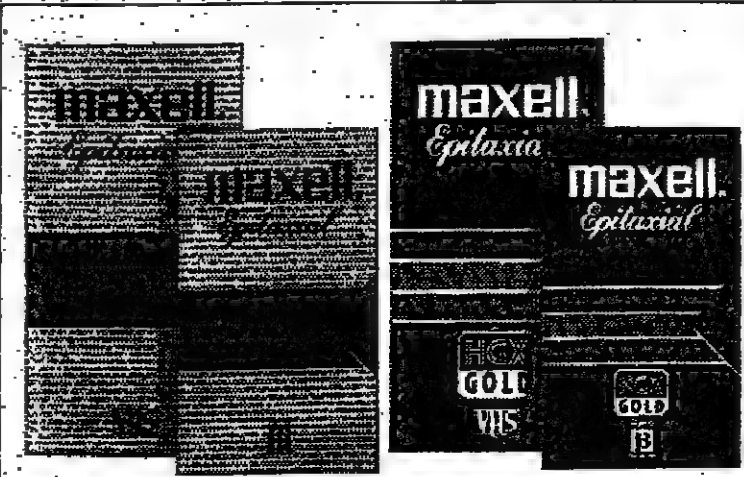
Vickers Da Costa, stockbrokers specialising in Far East industry, have this to say about Maxell: "Maxell have the advantage of excellent brand image gained in audio tape markets and certainly the best magnetic materials technology in Japan...we expect the best growth to be achieved by Maxell."

Maxell's success is based not merely on its superior technology and

the quality of its products, but also an excellent team spirit at all levels, equal opportunities to achieve senior positions, and a common determination to succeed.

In opening a factory in the U.K., Maxell will not merely be moving to the country with the highest growth in video tapes, but forming a base for all their video exports to the EEC.

It's a move which will consolidate Maxell's success to date, and bring real benefits to the U.K. economy.



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The latest and most ambitious Japanese electronics project, which has captured the attention of the industrialized countries, is the so-called Fifth Generation Computer. The ten-year programme, which began last year and has motivated the British into an attempt at emulation, could mean a revolution in computer technology.

The original idea of Von Neumann, the man credited with inventing the computer system on which the present designs are based, requires to be revamped. The change is necessary because computers will be used in the future by ordinary people with minimum or no technical education.

The Institute for New Generation Computer Technology (ICOT), which was created in April 1982 to spearhead the Japanese effort in this field, says: "An environment will have to be created in which man and the computer find it easy to communicate freely using a wide variety of information media, such as speech, text and graphics, representing man's natural ways of communicating information."

This generic change in computer design means that the devices will have an in-built intelligence (AI), allowing them to make decisions based on their experiences and memory. This would be necessary in respond-

ing correctly to voice commands, where the same word could be said dozens of different ways but must be acceptable to the computer.

The Fifth Generation Computer project was launched last year and is now being researched and co-ordinated by the members of the new institute. They are the government's Electrotechnical Laboratory (ETL), Nippon Telegraph and Telephone (NTT), the public telecommunications company, and eight privately owned corporations - Fujitsu, Nippon Electric Corporation (NEC), Hitachi, Mitsubishi, Toshiba, Oki, Matsushita and Sharp. The project, which is expected to cost at least yen 100,000 million (about £262m), is divided into three phases of development.

These phases are meant to ensure that a gradual design of a "super user friendly" computer system will take place before the end of the century. Data must be able to be fed into the system without the need of complex input procedures. That can be achieved by sophisticated optical character reading - either

typed or handwritten - and by voice.

Japan embarked on the road towards its Fifth Generation Computer project over a decade ago, when its semiconductor and computer manufacturers set out to compete with the electronic market leaders in the United States. To achieve that, another three-phased project, each phase about four or five years in length, was launched.

The first was to develop ordinary computers to bring Japan into line with the US, the second, which finished in 1980, was to develop Very Large Scale Integration (VLSI) chip technology, allowing high concentration on a single microchip, and the third, which is still in progress, was to develop sophisticated software. The first part required the cooperation of six computer/semiconductor manufacturers. Fujitsu, in partnership with Hitachi, designed the "M" series computers. NEC and Toshiba produced the ACOS system, and Oki and Mitsubishi the COSMOS series. The second phase of that programme was even more successful. By 1980, Fujitsu,

Hitachi and Mitsubishi in one partnership and NEC and Toshiba in another were able to produce the technology which would allow 256,000 bits of information to be concentrated on a microchip. That product is called the 256K RAM (Random Access Memory).

The Fifth Generation Computer project is typical of the long-term planning which has successfully guided Japanese industry over the last 20 years and frustrated Western competitors at the same time.

According to ICOT: "In Japan, research and development has hitherto been aimed at catching up with the technologies of the US and the advanced European nations. With Japanese technical achievements, however, the US and the advanced European nations have become wary of providing leading technologies and we fear that the old style of catching-up research and development will become more and more difficult."

Japan wishes to encourage international co-operation at an early stage so that any computer system which may result from

the project would have export potential. It has, however, resisted the temptation to segregate the project and have specific research pursued by particular countries. According to ICOT, the project is destined to provide Japan with the role of promoting the development of leading and innovative technologies ahead of the rest of the world."

Many representatives from the developed world converged on Tokyo last October to discuss the Fifth Generation Computer project. About 100 university researchers, engineers and government representatives from 14 countries, including the United States, Britain, West Germany, France, Canada, Italy and Sweden, attended.

In parallel with this visionary project the Japanese are actively researching to improve existing technology and build what are called super-computers.

There is a sharp contrast between the users of the Fifth Generation Computers and those of the super-computers. The former will be able to be used by, in fact, are designed for, the non-technical specialist, whereas the super-computers are to be designed and built for the professionals who find the current speed of computation too slow.

Typical areas where they would be used, because computational time is measured in hundreds of hours, are aerospace, in aerodynamic simulation of aircraft design; nuclear technology, in the analysis of the safety of nuclear reactors; and in sophisticated atmospheric research.

The first and most important part of the super-computer research is identifying new materials which can be used in the computational processes. The use of gallium arsenide as a semiconductor material is being researched by almost every Japanese electronics company. The material is able to compute at high speed and to operate at a



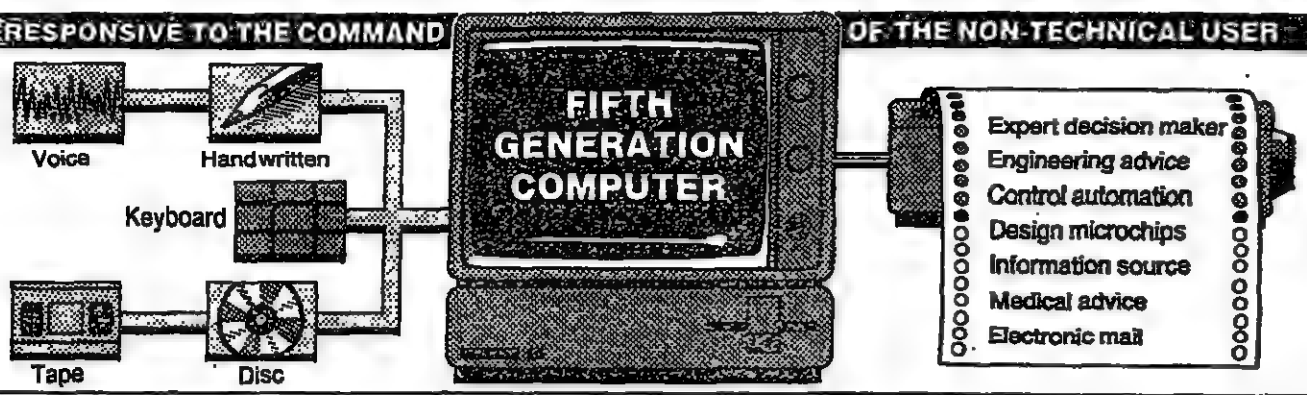
The home of the future will become the nucleus of entertainment and be used for business a far greater degree than before. Eventually people may work regularly from home connected by cable or satellite to their office.

higher frequency. Fujitsu has gone a stage further by inventing a gallium arsenide "sandwich." The device is called a high electron mobility transistor (HEMT) and works as fast as its nearest rival, the Josephson

junction, when operated at liquid nitrogen temperature of minus 196 degrees C. Both devices are able to function at high speed because of their superconductivity at low temperature.

Both the HEMT and Josephson junction require cooling. These are the crucial areas of research for the success of the super computer.

Bill Johnston



Biotechnology, or genetic engineering, has been "targeted" by Japan, as well as other nations, as one of the most promising "new" industries for the two final decades of the twentieth century. After what was perceived as a slow start, Japan is finding the gap between itself and the West is much smaller than many suspected.

The fruits of genetic engineering - such wonder drugs as artificially produced interferon and insulin - are still in the testing stage in Japan. It is now thought by many, however, that some traditionally strong industries, like fermentation of rice into sake and soybeans into curd, provide a more useful stepping stone into advanced molecular biology than was previously thought.

In size Japan's pharmaceutical and chemicals industries are no match for the giants of the West. They have, however,

honed their skills, and in some areas are world leaders. Japan boasts the biggest producers of antibiotics in the world. One little recognized, but nearly unique, advantage a number of these companies possess is a diversified product line, stretching across all the potential boundaries of genetic engineering. It is not uncommon to find food and beverage, chemical and pharmaceutical divisions coexisting comfortably under one roof.

Such is the case at Kyowa Hakko, a leader in fermentation technology which made its mark in the early 1950s when it fermented L-Lysine, ranked as the most important of the eight essential amino acids that cannot be synthesized by the

human body. That was considered impossible at the time, but much of the world's feed grain now depends on it.

Kyowa was the first in Japan to receive approval for large scale production of Beta-Interferon. Developed with Genentech, of the US, it began clinical tests for viruses and cancer on human beings at ten hospitals in April. Other Japanese companies are following suit.

Biotechnology has enjoyed a publicity "boom" in Japan during the last few years, mainly as a convenient tag for the securities industry, as it boosted the stocks of an array of so-called "high-tech" companies. Japanese interest was sparked by reports of cancer cures in the United States. One company in

particular, Genentech, a pioneer in Interferon, in which Japanese companies have a stake, produced a spectacular public stock offering.

Advances in biotechnology have been much more rapid than previously expected, both inside and outside Japan. The response to "biotechnology fever", as one official describes it, has been to stir a number of government agencies and ministries into action. Nearly all the government sections now mandated to look at biotechnology are less than a year old.

About a dozen companies are pulling ahead in research and development, either on their own or in cooperation with foreign companies. However, at a general level, businessmen

and government officials are still at the stage of organizing integrated and systematic research and development activities. The first order of business has been to identify the weaknesses which Japan must overcome. One critical factor was the slowness of the government itself in drawing up appropriate guidelines and standards for conducting recombinant DNA experiments. The National Institutes of Health in the United States announced their guidelines in 1976. Similar guidelines were not released in Japan until 1979.

In addition, companies have an insufficient number of competent researchers. A lack of fundamental research is considered Japan's Achilles' heel.

One compensating factor, however, has been the contribution of Japanese researchers working abroad in developing biotechnology who have in some cases facilitated technological transfers back to Japan.

A look at how Japan is organizing itself, however, is instructive in the light of its record of building "high-tech" industries into world class competitors. Biotechnology has weighed on the mind of the Ministry of International Trade and Industry (MITI) for several years. It was selected in the latter half of the 1970s as an officially designated "next generation industry" after an exhaustive national "think-in" organized by MITI and designed to establish a consensus

on which strategic industries needed help. MITI, whose job it is to set these type of "visions" of industrial policy, came up with three, the other two being new materials (fine ceramics, for one) and new electronics (leapfrogging into fifth generation computers).

For biotechnology, it has established three projects, each lasting nine or ten years, which involve a large number of private companies and government laboratories in research on recombinant DNA, the centre of most attention because of its potentially wide applications in medicine and beyond, bioreactors, and large-scale mammalian cell cultures.

Of the yen 104,000m (£280m)

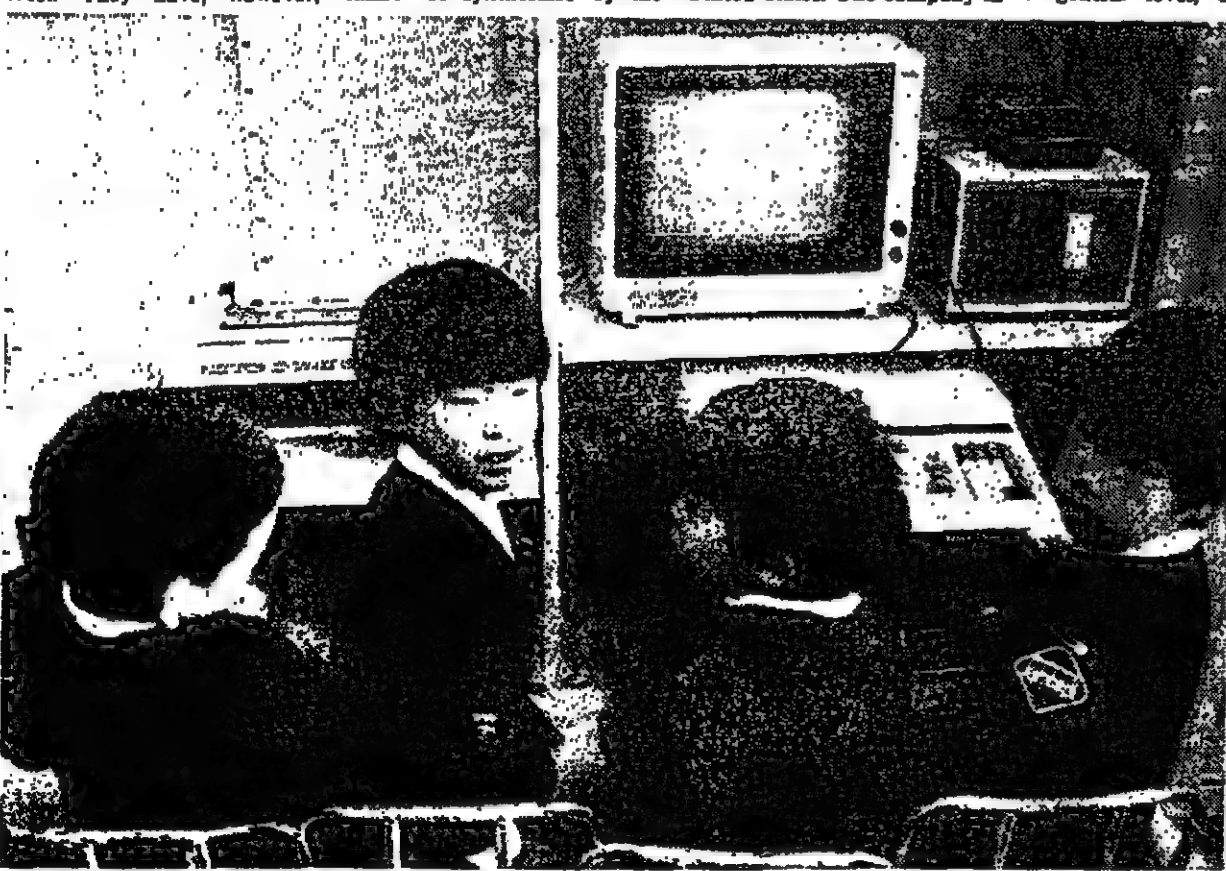
MITI would like to spend the next generation of industrial this decade, over yen 30,000 should go to biotechnology.

Compared with past MITI projects, this is a modest sum especially since the government's "seed money" is to spread among a very large number of companies.

This is not the only money the government will spend. Biotechnology, however, T Science and Technology Agency, Ministry of Health and Welfare, Ministry of Education, Ministry of Agriculture a assorted quangos also has budgets, though most of the are small.

Richard Hans

A rapid advance in biological wizardry



Playing the game

While other children of their age paint pictures and learn the alphabet, the five-year-olds (left) at a kindergarten in Tomiya near Tokyo learn how to operate computers. On the right a worker puts the finishing touch to a robot in a plant belonging to Kobe Steel. In both computers and robots the Japanese are among the front runners in the technology race with the West. They are working on a "fifth generation" of computers and have installed more robots than any other country.



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Where ceramics aren't pottery

Fine ceramics which are being extensively researched in Japan are showing that their physical and chemical characteristics can be harnessed to improve the performance of electronic and mechanical components.

The materials, because of their extremely high melting point - above 1500 degrees Centigrade - are ideally suited for use in automotive engines, while the ease with which they can be shaped and machined into complicated designs and given a polished finish makes them attractive to the manufacturers of electronic components.

Fine ceramics are synthesised using pure, non-metallic and inorganic substances. Pottery, brick and cement are examples of the materials used to make ordinary ceramics, while fine ceramics are manufactured by producing metal oxides, nitrides and carbides by combining the metal with oxygen, nitrogen and carbon dioxide gas respectively.

The high melting point of the materials has already proved to be an asset in mechanical engineering in Japan and is the feature which the automotive industry seems most keen on exploiting. Kyoto Ceramic, which was renamed Kyocera Corporation last October, has been experimenting with a three-cylinder diesel engine made from ceramics. The company has also been experimenting with ceramics in the manufacture of glow plugs, which are used in diesel engines to warm the engine chamber and start the engine. The company has been working with Isuzu Motors on this project, and the plugs are being used in the Gemini car models.

Other investigators, one of Japan's leading ceramic companies, has been working with Cummins of the United States to produce a ceramic diesel engine.

The properties of fine ceramics are particularly attractive to the makers of diesel engines or other engines which burn at temperatures higher than that of an ordinary petrol driven engine. Diesel does not ignite until it has reached over 900 degrees Centigrade.

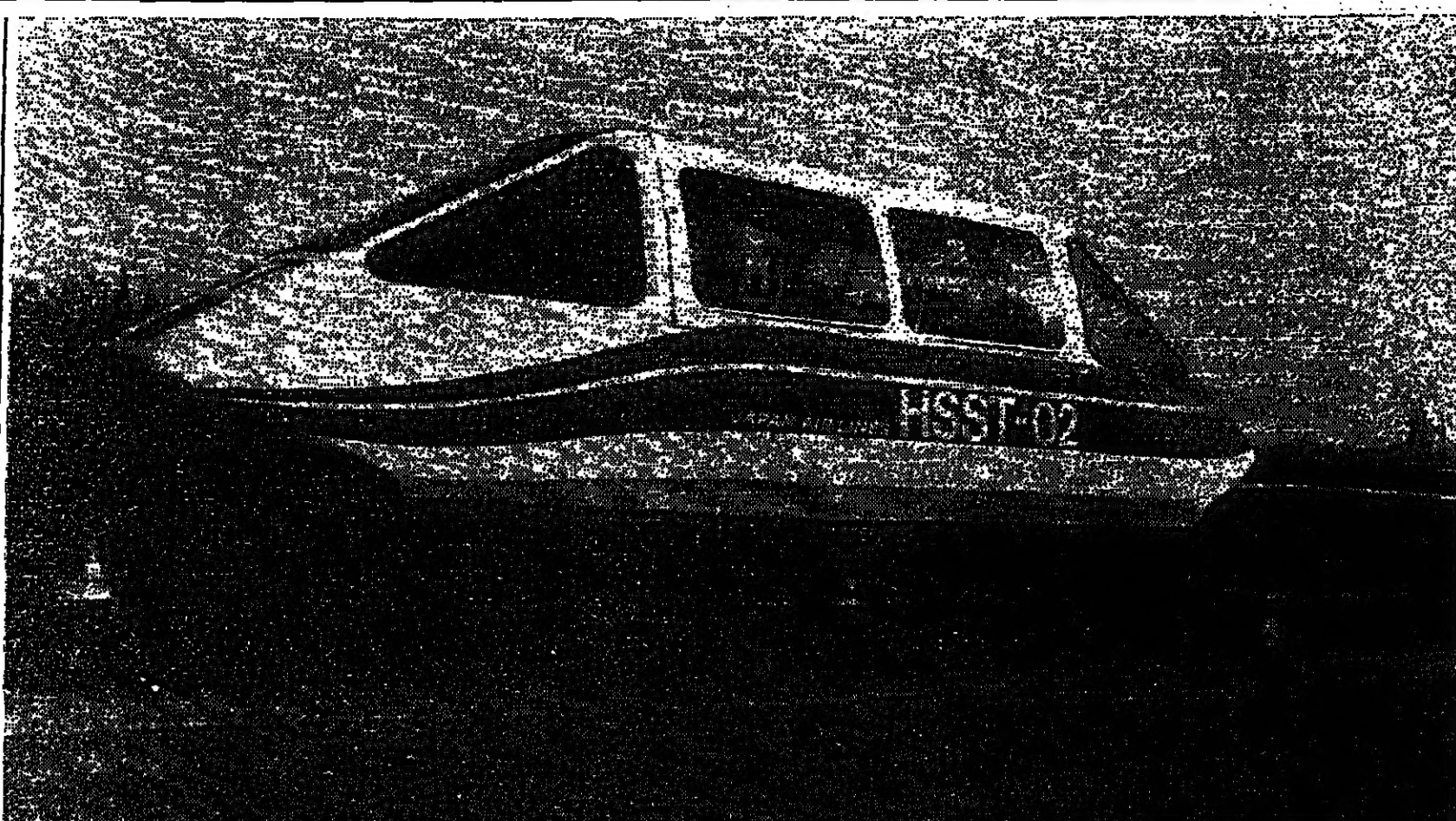
The efficiency of the engine and the substantial improvement in power to weight ratio which would be achieved using ceramics are two of the attractions of pursuing this research. Another feature exciting car designers is that ceramic needs no cooling and would, if used extensively, lead to a completely new design of car which might prove even more aerodynamically efficient.

In electronics and electrical engineering fine ceramics are used as mountings for microchips and as coverings for most components. Their effectiveness as an insulator even at high temperatures is one of the material's principal properties being exploited by Japan's booming electronics industry.

Other characteristics include resistance against wear, since the materials are frequently nearly as hard as diamonds, and resist corrosion because they are not affected by water, air, acid or alkali. Also the materials can be used on a minute scale, thus making the miniaturisation of electronic components equipment simpler.

The material is now used in hi-fi speakers, telephones, the compact audio disc, personal computers and as a high quality cutting tool.

Bill Johnstone



"Flying" two-fifths of an inch above a rail, this Japan Airlines magnetic levitation vehicle is designed to cruise at nearly 190 mph.

Not a car, not a train, not a plane

Visitors to Japan's 1985 technology exhibition at Tsukuba near Tokyo will be able to "fly" through the site at an altitude of two fifths of an inch. This is precisely the distance between a special track and the magnetic modules which levitate Japan Airlines' (JAL) HSST-02, one of the most advanced magnetic levitation (mag-lev) vehicles in the world.

"It's not a car, not a train, not a plane," says a promotion film for the HSST, which stands for high speed surface transport. It is a linear motor propelled electromagnetic levitation system. The Tsukuba version will glide along at a modest 20mph carrying 46 passengers.

Its unmanned forerunner, HSST-1, achieved, with rocket assistance, a speed of 307.8kph

in a test in 1978 which confirmed the viability of the vehicle's mag-lev technology. A commercial version would cruise at around 300kph carrying more than 220 passengers.

The HSST is one of two Japanese mag-lev projects designed to provide transport for the future. The other is being run by the Japan National Railways (JNR). JNR produced Japan's famous Shinkansen "Bullet" which, with speeds of around 200kph, for many years held the world record for a passenger train, a distinction which has now passed to France's TGV.

The main difference between the JNR and the JAL vehicles lies in the propulsion technology. JNR has developed

what is described as a super conduction system, which makes use of the repelling force of intensive electric magnets caused by the superconductive state. JAL uses the attractive force of normal electric magnets.

Railway buffs will also appreciate the other major difference between the two systems. JAL, being in the airline business, saw no need to use a traditional railway car bogey configuration for wheels. The HSST is controlled by a pilot, not by a driver, and its body was designed along the lines of an aircraft and built in a light alloy.

JNR is trying to develop a long distance train to replace the "Bullet". In tests it has reached speeds of up to 517kph.

In service it would reduce the Osaka-Tokyo trip from 3 hours 15 minutes to about 90 minutes, offering strong competition to air travel.

The HSST is designed for shorter runs, say from an airport to a city centre, which is why JAL entered the ground transport business in the first place. In 1974 JAL began worrying about the distance between central Tokyo and Narita international airport, a journey which by bus in heavy traffic can take two or three hours.

JAL's engineers concluded that the electromagnet levitation system developed by a West German consortium, Magnetbahn, offered the best approach. As the HSST became a national project, the government opened

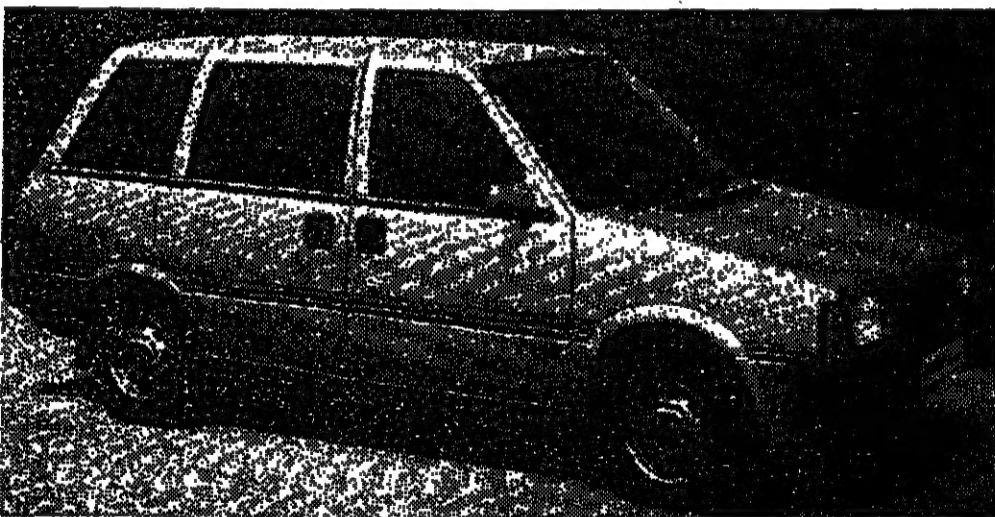
joint development talks with West Germany.

These talks, however, have stalled and it looks as though no agreement will result. In any case, JAL thinks its system has advantages over West Germany's. But it might consider other partners for the project, including Britain.

The HSST will probably never see service between Narita and Tokyo. Constructing such a line would be extremely costly because of land prices. But it may be used to link a new airport being planned for Osaka. A special company has been formed to promote the vehicle, and JAL believes a commercial version could be produced within 10 years.

Richard Hanson

Coming: the model that won't ever let you get lost



An election special? The Nissan Prairie, a small estate car, went on sale in Britain on June 9.

ment of the passenger car are included on the list. Among these are semi-conductors, ceramics and certain other "new materials", fibre-optics and voice-recognition devices.

Most notable is the semi-conductor, or integrated circuit (IC). It is no coincidence that it was in the period around 1979-1980, when Japanese mass-production techniques sent prices of the 16K RAM IC

tumbling and quality levels rising, that a flood of micro-computer-based systems suddenly appeared in new Japanese cars.

This trend has accelerated with the arrival of the more powerful 64K RAM and is sure to continue through future generations of chips now being developed. Toyota estimates that the Japanese car industry, which enjoys close access to the big IC makers, bought at least 39,000m yen (about £102m) worth of ICs in 1981 and says that, even allowing for rapid reductions in unit price, the value of electronic automotive components bought in 1985 will be three times that of 1980.

New materials are another key area. An all-ceramic engine is now not far off, carbon-fibre composites as an alternative to much of the metal bodywork are now under development, and the application of fibre-reinforced plastics is already well advanced.

A Nissan spokesman pointed out, for example, that the "X car" of General Motors now contains 65 lbs of plastic, while the comparable Nissan Bluebird has 76 kgs. Wheels, fuel tanks and windows are likely to be some of the first items to go plastic. Lighter, high strength, low alloy steels are also being increasingly introduced into car bodywork.

Advances in fibre-optics could soon lead to the obsolescence of conventional car wiring, which is bulky and heavy. It will be replaced by optical fibre cables, which are very thin and light and offer a greater density and efficiency of signal transmission. They are also immune to outside electrical interference.

As with semi-conductors, some of the world's best quality, and highest volume, supply is on the doorstep. The introduction of "voice" controls has already begun in modest ways. Toyota was the first in the field, in 1980, with its speak monitor which uses speech synthesis ICs to automatically give instructions such as "please check the key" automatically.

Nissan followed suit in 1981. Both companies observed that the only drawback to the system was the tendency of drivers to become tired of the noise and switch it off. They are more optimistic about "voice recognition" systems, which obey

instructions spoken by the user. These are already installed in some cars for switching on the car radio and raising the windows. But the real future lies in the eventual linkage to a central computer system handling virtually any operation from starting the engine to opening the boot.

Probably the most successful applications of micro-electronics to date have been those to control the efficient running of the car engine. Japanese cars now frequently feature micro-computer controlled fuel injection, engine idling reduction, cruising speed auto-control, transmission management, exhaust cleaning and diagnostic functions, and several models already feature a single central computer controlling all these operations.

Safety features being introduced include electronic skid control, which acts to prevent locking of the wheels during braking, and ultra-sound and radar systems, used either to warn of obstacles behind the car or to control engine power so as to maintain a fixed distance behind cars travelling in front, an especially useful feature when driving in fog.

Drivers also should not need to get lost anymore. Toyota's computerized "Navicom" system allows the driver to home in on a target destination, even in unknown places, by use of a terrestrial magnetic sensor which constantly registers the direction and distance to the target, making use of simple data from a street map fed into the system by the driver.

Laser systems will use cellular radio to pick up information on traffic flow and preferred routes, from the ultrasound sensors which are already installed on many streets. Ultimately, the Japanese plan to fit a dish antenna on to the car roof, allowing the precise identification of one's position by use of geostationary satellites.

Meanwhile, Japan's car makers are also absorbed with more worldly cares. Diminishing export markets, and the effects of recession on sales generally, have led to the industry's first decline in production and sales since the 1973 oil shock, and to a growth in competition in the domestic market.

The Japanese passenger car

market, which only really got going in the late 1960s, is both immature and highly demanding, at the same time. What really matters are still the buzz words, which at present are 16-valve, double overhead cam, front-wheel drive and, currently the height of fashion, turbo.

Yet these attributes must be offered on a considerable range of traditional models, each of which satisfies widely recognized gradations of social status. All these social categories demand frequent upgrading of the product, but also never want to appear too different, which is one reason why for so long Japanese cars have all looked so similar. The highest levels of economy, and total reliability, along with compliance with Japan's ultra-strict noise and pollution regulations, are in all cases taken for granted by car buyers.

With great good fortune, the 1973 oil crisis, coupled with market conservatism and fluctuation, led the Japanese to channel their energies, early on, into the sort of economy-conscious car that the rest of the world was also, later, to demand. In the same way, the present increased concern with the home market could, once again, lead to advances which put the Japanese a step ahead.

Roy Garner



Child's play. Even 12-year-olds come bargain-hunting at the Akihabara electronics flea market in Tokyo.

The sunshine answer to the oil crisis

Japan's reaction to the 1973 oil crisis has been described as a "national nervous breakdown". Exposed was the nation's Achilles' heel, the lack of any significant domestic supplies of energy. In its rush to catch up with the economies of the West, Japan had allowed itself to be lulled into thinking that cheap oil supplies would always be available.

Once the national bearings were regained, however, there followed a determined effort to reduce that dependence, partly by diversifying supply sources, but most importantly by conserving energy, which in Japanese is called *sho-enerugi*.

Between 1973 and 1980 this effort was successful enough to reduce the industrial use of energy by nearly 23 per cent, while still increasing output. Oil consumption fell by 41 per cent. The initial savings were fairly simple to achieve. After the oil crisis, the Ministry of International Trade and Industry (MITI) declared an emergency and cut supplies of electricity to industry. Industry itself needed little motivation from MITI to cut energy use because costs had quadrupled overnight.

While the bell tolled for some industries like aluminium, which uses expensive electricity, other energy-intensive sectors such as steel launched efforts which in large part succeeded in keeping them competitive. In the first stages, savings were made by changing wasteful methods of production - turning off heaters and closing doors, using waste heat and other economies.

The next stage, however, required hard rethinking about changing manufacturing processes, which entailed the costly introduction of new technology. The most important achievements of the steel industry have been in introducing continuous casting lines, which now process almost 80 per cent of the output. The cement industry

launched a massive investment plan to install new suspension pre-heaters, which save fuel improve the product and reduce pollution. The idea was developed in West Germany in the 1950s but was refined by the Japanese in 1971. Meanwhile, MITI set about improving energy-saving technology on several fronts. One way was to pass regulations requiring companies to tighten up on energy consumption. Industrial plants were told to appoint energy managers, who have to take a rigorous training course offered by the government to be licensed.

Home appliance manufacturers were required to meet energy consumption standards for refrigerators (44 per cent of the 1973 level), colour television sets (64 per cent) and air conditioners (61 to 71 per cent) by 1981.

In 1974 MITI started the Sunshine Project, which was to develop new energy sources such as solar and geothermal power. The most far-reaching government programme, however, is called the Moonlight Project, an attempt to develop key areas of new technology. The centre-piece is a series of large-scale research and development projects being undertaken jointly with private industry.

One scheme is to produce an advanced gas turbine by 1987, which will require the development of new heat-resistant materials. Another is to develop magneto-hydrodynamics power generation, in which hot combustion gas at a temperature of about 2,700 degrees Centigrade passes at high speed through a power generating channel located inside powerful magnets. The others are to build an advanced battery electric power storage system, fuel cell power generation technology, and a Stirling (external combustion) engine.

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Nearly all the revolutionary advances which Japan's steel industry has used, bought or licensed since the war have come from the West. The most notable are the basic oxygen furnace (BOF) and continuous casting (CC) of molten steel. Kawasaki Steel, one of whose BOFs is pictured right, boasts a CC ratio of more than 93.4 per cent.



Lagging behind in venture capital

For a country with a solid reputation for innovation in industry, Japan has a strikingly conservative financial sector. One result is that venture capitalism - the art of matching risk-taking investors with new technology, ideas or entrepreneurial talent - has never taken hold on anything like the scale that it has in the United States and elsewhere.

system are also an inhibiting factor. One of the hangovers of the post-war recovery period in Japan is an over-protected banking system and a securities industry dominated by brokerage houses more interested in manipulating stock prices than serving as a conduit for investment in new enterprises.

Japan's 13 city (clearing) banks are by nature not interested in lending money to any business - let alone an individual - without a proven track record. Japan's stock market, though the second largest in the world, has never served as the main source of capital for growing companies.

In recent years up-and-coming high-technology companies have found financing available only after they have made good. Research and development by industry is mainly centred on applications for existing technology and not on basic, and therefore more expensive and risky, science.

Venture capitalism works only when the investor sees some long-term capital gain to be made by investing early in a company's life. The most common method is to take an equity stake or purchase a convertible bond to inject capital.

Steel: will the West now turn to Japan?

Steel is one of the most impressive post-war examples of how Japan has used imported technology to build an industry which has come to lead the rest of the world. The main reason for Japanese success is technology, this time their own, and the lead they have over nearly all of the rest of the world. The odds are that the technology gap between Japan and Western steel industries (the US in particular) will rapidly grow even larger during this decade. What worries Japanese steelmen is not any competition, even from cheaper steel producers in developing countries, but rather that this widening gap could spark a further bout of protectionism in the West.

advances which Japan used, bought or licensed in the post-war period (notably the basic oxygen furnace and continuous casting of molten steel) originated in America or Europe, or, in at least one case, Russia. It was not until about 1970, when a merger produced Nippon Steel, the world's largest steel company, that Japan brought its technology trade in steel into balance. (Nippon Steel now runs a technology surplus of roughly ten to one in value.) There were several milestones along the way.

First, Japan's steel companies began with the ironic advantage of having been completely destroyed by American bombs during the war. This allowed companies to rebuild with entirely new, and therefore more efficient, plant and equipment, using the latest Western techniques. Plants were relocated to coastal regions to allow efficient imports of raw materials and shipments of finished products. Steel was a national priority, and funding was made available.

What has distinguished the industry since then is the unforgiving willingness of Japan's five privately owned integrated steel producers - Nippon Steel, Kawasaki Steel, Nippon Kokan, Sumitomo Metal Industries and Kobe Steel - to spend their own money on new technology and on the latest plant and equipment.

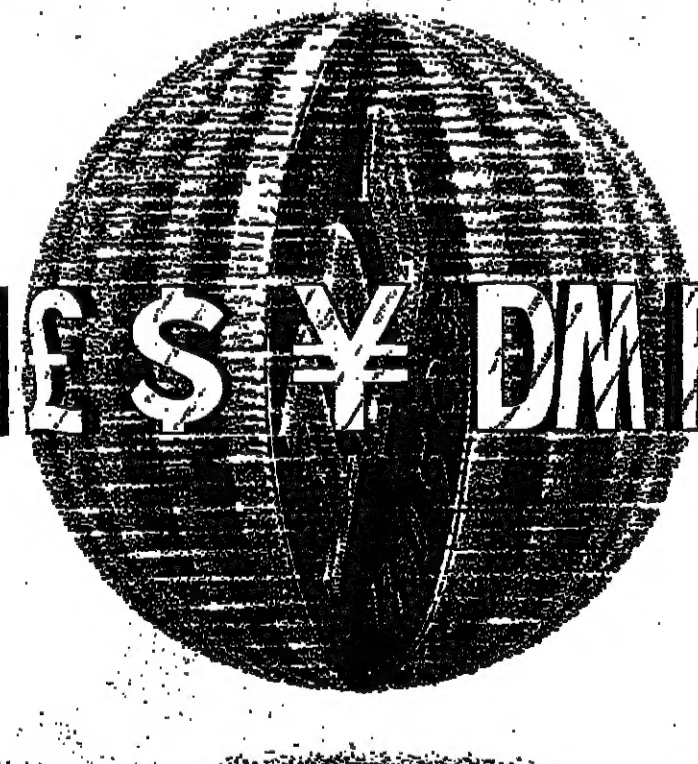
The incentives were clear - a fast growing economy and fast growing industries, like cars and shipbuilding, which used steel. Technology was generally available, either abroad or through shared developments at home. It is a generally accepted practice in Japan for competing technicians and engineers to share industrial and technological information at a myriad levels, including government and privately sponsored conferences.

Until the first oil crisis in 1973 the priority was simply to produce larger quantities of higher quality steel for industry as cheaply as possible, a key element behind the international competitiveness of a long list of Japanese industries. This meant a switch from the open hearth furnace to basic oxygen furnace (BOF) technology developed in Europe, then building bigger blast furnaces and BOFs, and replacing ingot making with more efficient continuous casting lines.

This era ended abruptly with the oil crisis, which presented an entirely new set of technological dilemmas. The main one was to reduce oil and other forms of energy consumption. In many cases this had to be achieved while running giant blast furnaces at well below capacity. Japan now operates at about 60 per cent of its theoretical capacity.

Initially, large savings could be had from relatively inexpensive steps such as using waste heat and tightening up on operating systems and habits. The market for steel, however, was also undergoing a rapid change, away from quantity to quality and more speciality steel. Ways needed to be found to produce better and more varied types of steel using less energy.

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